

Griffith, William.

Development of organs in phanogamous  
plants. 1847.

(*Scolec plantarum Asiaticarum*)  
pt. I.

581.95  
1.685







THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO PRESS

THE UNIVERSITY OF CHICAGO PRESS

THE UNIVERSITY OF CHICAGO PRESS

THE UNIVERSITY OF CHICAGO PRESS

THE UNIVERSITY OF CHICAGO PRESS

THE UNIVERSITY OF CHICAGO PRESS

THE UNIVERSITY OF CHICAGO PRESS

THE UNIVERSITY OF CHICAGO PRESS

THE UNIVERSITY OF CHICAGO PRESS

THE UNIVERSITY OF CHICAGO PRESS

THE UNIVERSITY OF CHICAGO PRESS

THE UNIVERSITY OF CHICAGO PRESS

THE UNIVERSITY OF CHICAGO PRESS



PK  
358  
684  
1849  
pt. 1  
Bot

581.95  
685

POSTHUMOUS PAPERS

BEQUEATHED TO

THE HONORABLE THE EAST INDIA COMPANY,

AND

PRINTED BY ORDER OF THE GOVERNMENT OF BENGAL.

ICONES PLANTARUM ASIATICARUM.

Part I.

DEVELOPMENT OF ORGANS

IN

PHANÆROGAMOUS PLANTS.



BY THE LATE

WILLIAM GRIFFITH, ESQ., F.L.S.,

MEMBER OF THE IMPERIAL ACADEMY NATURÆ CURIOSORUM AT BONN: CORRESPONDING MEMBER OF THE ROYAL BOTANICAL SOCIETY OF  
PARIS, OF THE ROYAL ACADEMIES OF SCIENCE AT TURIN AND CHRISTIANA, HORTICULTURAL AND ENTOMOLOGICAL SOCIETIES, AND  
SOCIETY OF ARTS, LONDON: MEMBER AND FOR SOMETIME VICE-PRESIDENT OF THE AGRI-HORTICULTURAL SOCIETY OF INDIA.

*Assistant Surgeon on the Madras Establishment: and a short time Officiating Superintendent of the Honorable  
Company's Botanic Garden, Calcutta, and subsequently Civil Assistant Surgeon, Malacca.*

ARRANGED

BY JOHN M'CLELLAND, F.L.S.,

*Surgeon, Bengal Service.*

Calcutta:

BISHOP'S COLLEGE PRESS.

1847.

23



6x85

ENTREPRENEUR  
NATIONAL MUSEUM  
C 166959

	PLATE	NOTULE PAGE
Dendrobium Dalhousianum, .. .. .	5 to 7 ..	10
Echinopsidæ, .. .. .	33 ..	82
Erythraea, .. .. .	29 ..	71
Escholtzia, .. .. .	38 ..	107
Euphorbia, .. .. .	30 ..	71
Ficus elastica, .. .. .	59 ..	230
Gramineæ, .. .. .	33 ..	84
Gmelina asiatica, .. .. .	39 ..	104
Gossypium, .. .. .	51 ..	162
Hydrocharis, .. .. .	57 ..	217
Hydrocotyle, .. .. .	45 ..	185
Hymenæa courbaril, .. .. .	58 ..	227
Hymenæa verrucosa, .. .. .	60 ..	225
Iris, .. .. .	34 ..	89
Impatiens tripetala, .. .. .	45 ..	186
Jussiaea, .. .. .	34 ..	87
Jonesia asoca, .. .. .	1 ..	2
Labiata, .. .. .	33 ..	83
Lonicera, .. .. .	36 ..	127
Lotoides, .. .. .	34 ..	82
Lithospermum, .. .. .	34 ..	82
Lindenbergia, .. .. .	39 ..	63, 102*
Limnanthes Douglasii, .. .. .	34 ..	91
Marica, .. .. .	34 ..	86
Marlea begonifolia, .. .. .	45 ..	185
Melia, .. .. .	37 ..	111
Medicago minima, .. .. .	33 ..	81
Melilotus albus, .. .. .	29 ..	78
Meyenia, .. .. .	28 ..	94, 95*
Michelia champaca, .. .. .	58 ..	229
Monstrosity of Sinapis, .. .. .	35 ..	124
„ of Goodyera, .. .. .	41 ..	130
„ of Melilotus, .. .. .	42 ..	127
„ of Melilotus officinalis, .. .. .	43 ..	130
Nandina domestica, .. .. .	60 ..	225
Nelumbium, impregnation of .. .. .	55 & 56 ..	210
Nepenthes distillatoria, .. .. .	60 ..	232
Nerium oleander, .. .. .	33 ..	83
Orchideæ, .. .. .	32 ..	110
Orobanche, .. .. .	44 ..	21, 73*
Pardanthus chinensis, .. .. .	34 ..	85
Passiflora incarnata alba, .. .. .	58 ..	227
Passiflora kermesina, .. .. .	2 to 4 ..	4
Papaveraceæ, .. .. .	29 ..	69*, 72, 96
Pitcairnia bromeliæfolia, .. .. .	34 ..	90
Potentilla, .. .. .	34 ..	82
Pharnaceum, .. .. .	57 ..	217
Piper, .. .. .	46 ..	188
Polygonum, .. .. .	47 ..	189
Poinciana, .. .. .	38 ..	105
Pontedera, .. .. .	34 ..	89
Poinciana regia, .. .. .	59 ..	222
Pternandra cœrulescens, .. .. .	28 ..	108
Ranunculus acris, .. .. .	34 ..	81
Roxburghia viridiflora, .. .. .	12 to 16 ..	31
„ Fruit of .. .. .	62 ..	29



	PLATE	NOTULÆ PAGE
Ruelloid, .. .. .	33	82
Saccolabium guttatum, .. .. .	8 & 9	22
Sambucus, .. .. .	47	191
Scepaceæ, .. .. .	54	202
Siegesbeckia orientalis, .. .. .	48	193
Smilax, .. .. .	59	238
Sisyrinchium, .. .. .	40	116
Spilanthes, .. .. .	48	193
Spermacoe, .. .. .	61	196
Stigmata, .. .. .	33 & 34	74
Styrax, .. .. .	47	190
Swertia, .. .. .	32	110
Tacca pinnatifida, .. .. .	{ 34 28	88 89
Thymelia, .. .. .	46	189
Veronica, .. .. .	29	78
Villarsia, .. .. .	29	88
Volkameria, .. .. .	49	194
Xanthium indicum, .. .. .	48	192
Zephyranthes, .. .. .	34	86

## ERRATA.

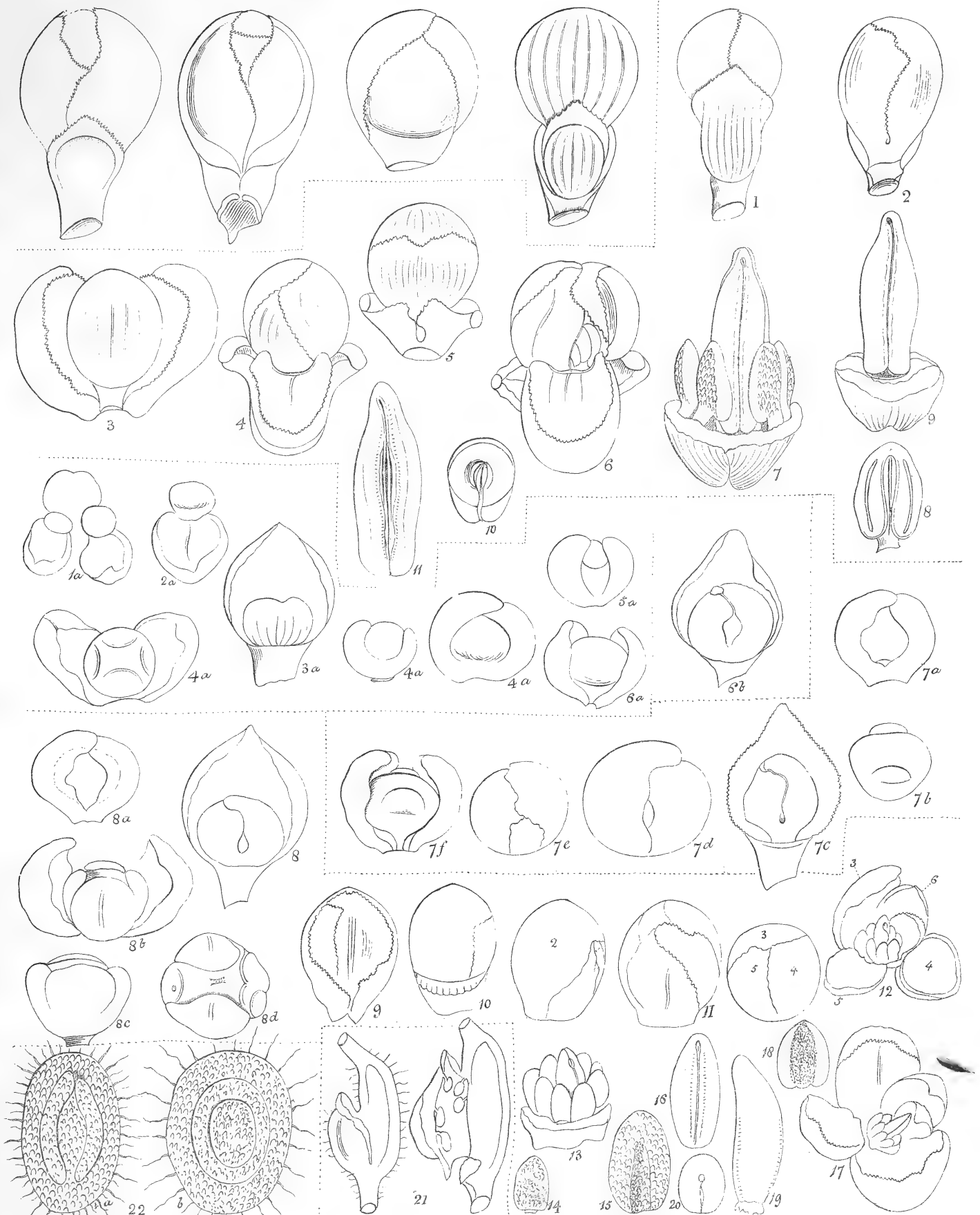
Plate 28, for *Calotropis gigantea*, read *Calotropis procera*.

Plate 40, for *Pardanthus chinensis*, read *Sisyrinchium*.

NOTE.—An error runs throughout the heading of the Plates, it having in the first instance been intended merely to publish selections from these papers in connection with the Calcutta Journal of Natural History, when it afterwards appeared more consistent with the liberality of the Government on the occasion, as well as the nature of the papers, to print them in a distinct form.







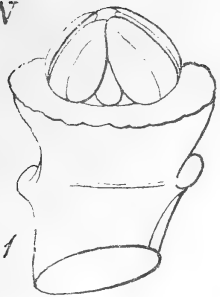
W. Griffith del.

*Ionesia Asoca*

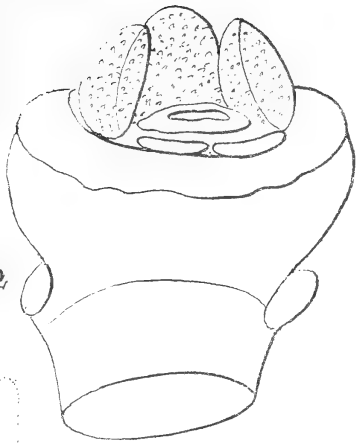




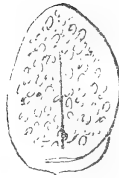
IV



2

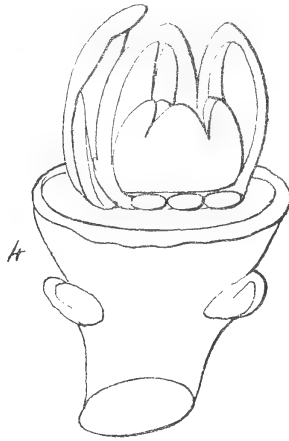


3

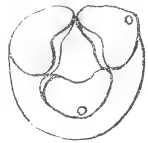


V

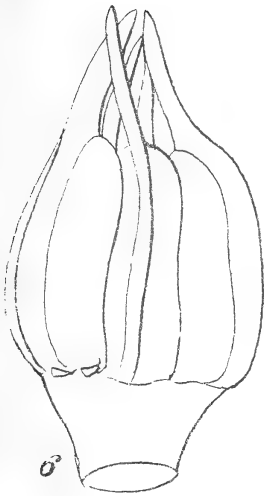
Calcutta Journ Nat Hist Pl. II



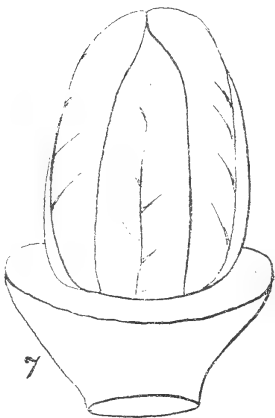
5



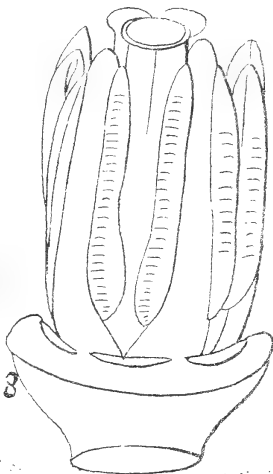
VII



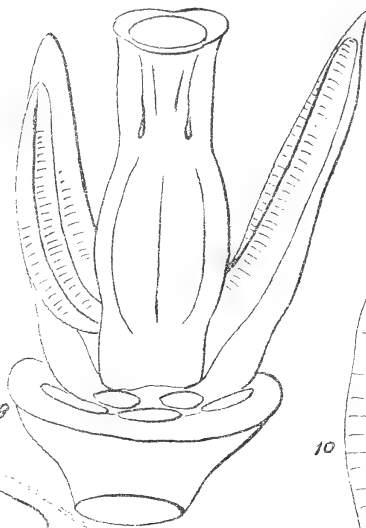
7



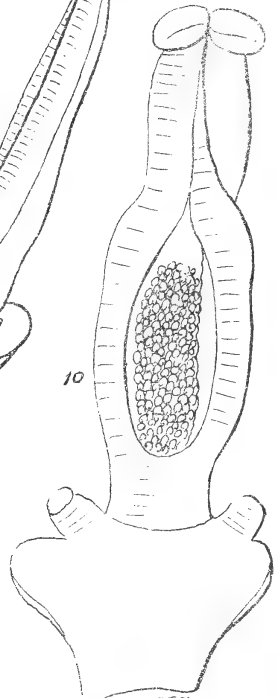
8



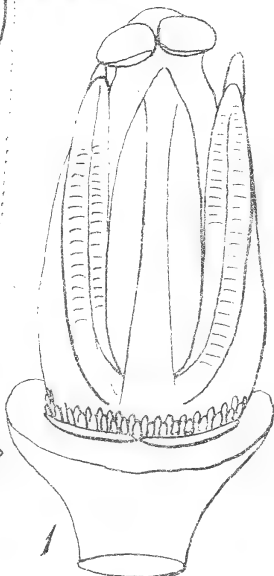
9



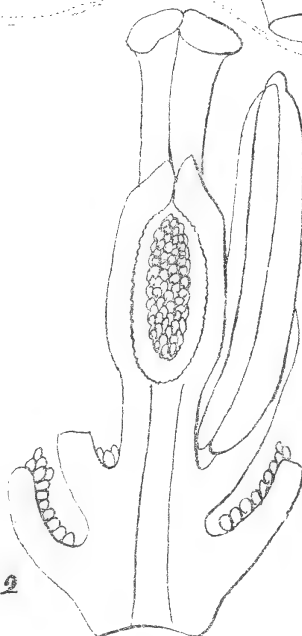
10



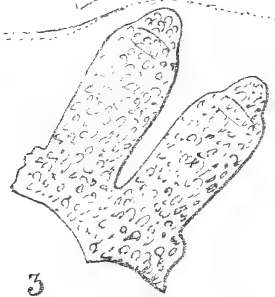
VIII



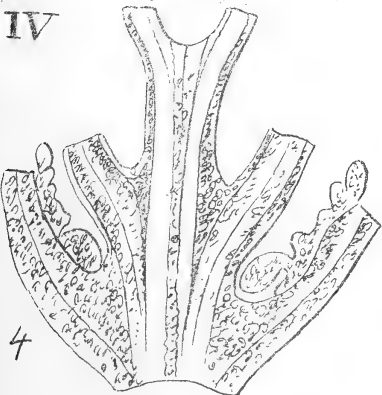
2



3



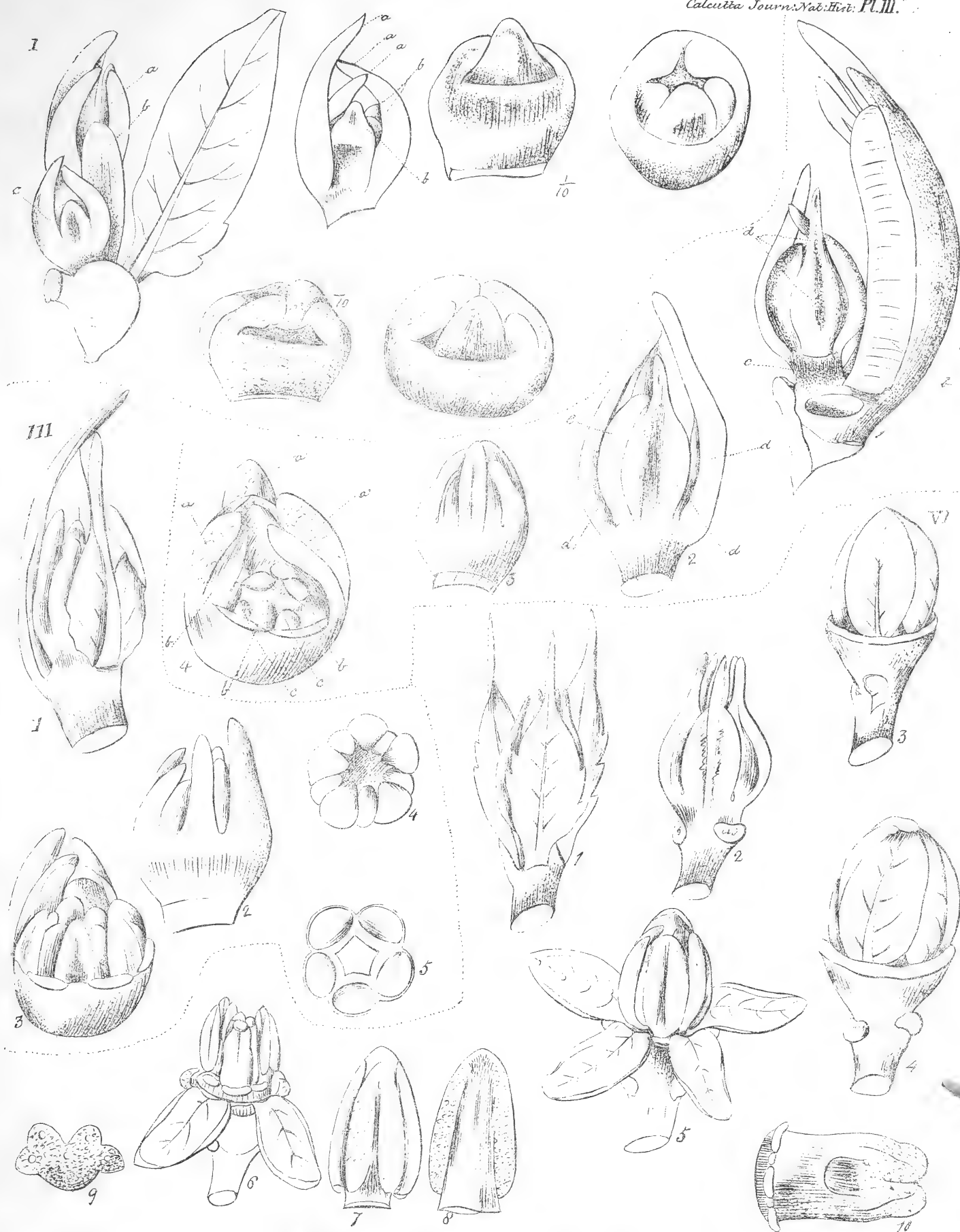
IV



W. Griffith del.

*Passiflora Hermesia.*



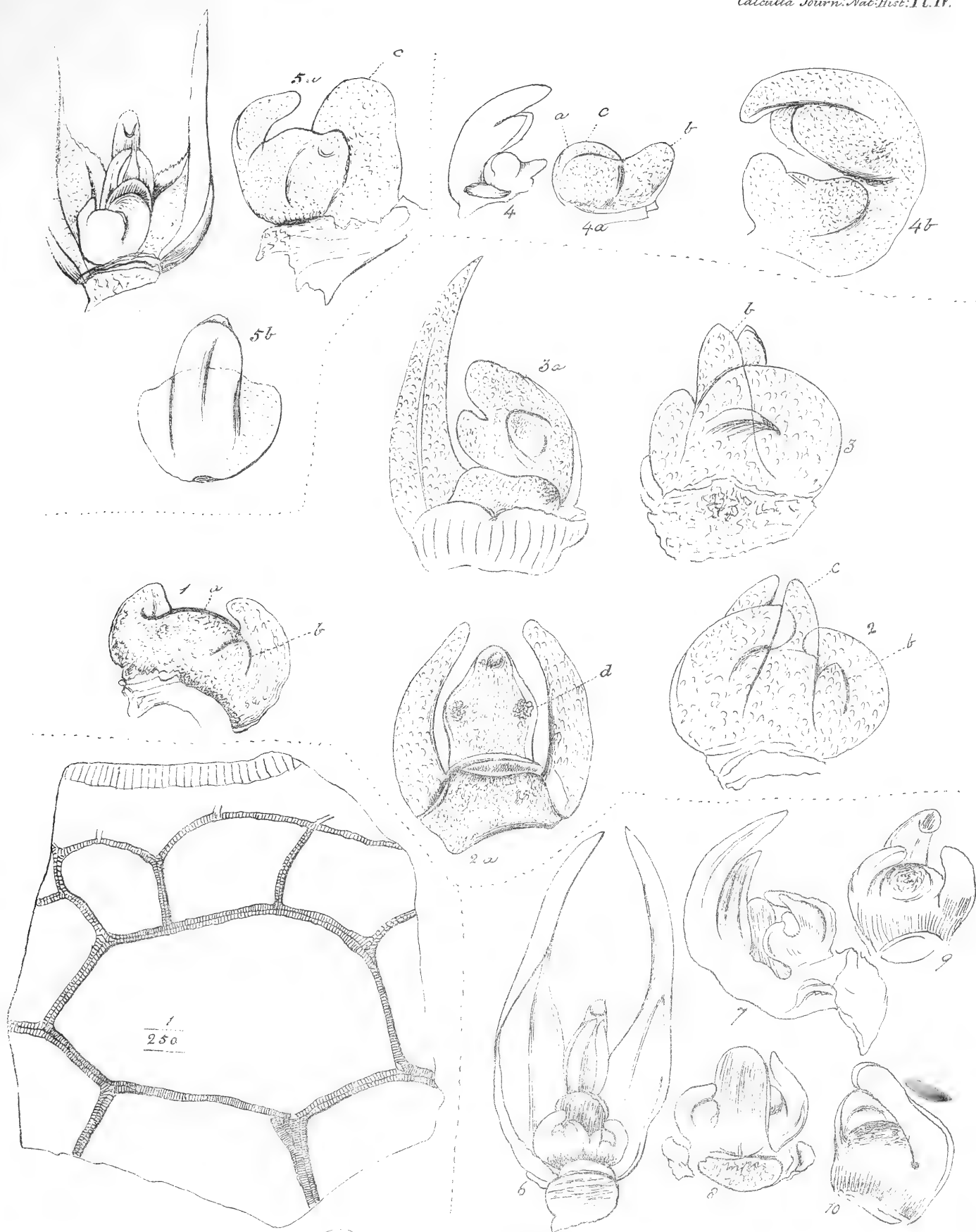


W. Griffith del.

*Passiflora Kerresina.*





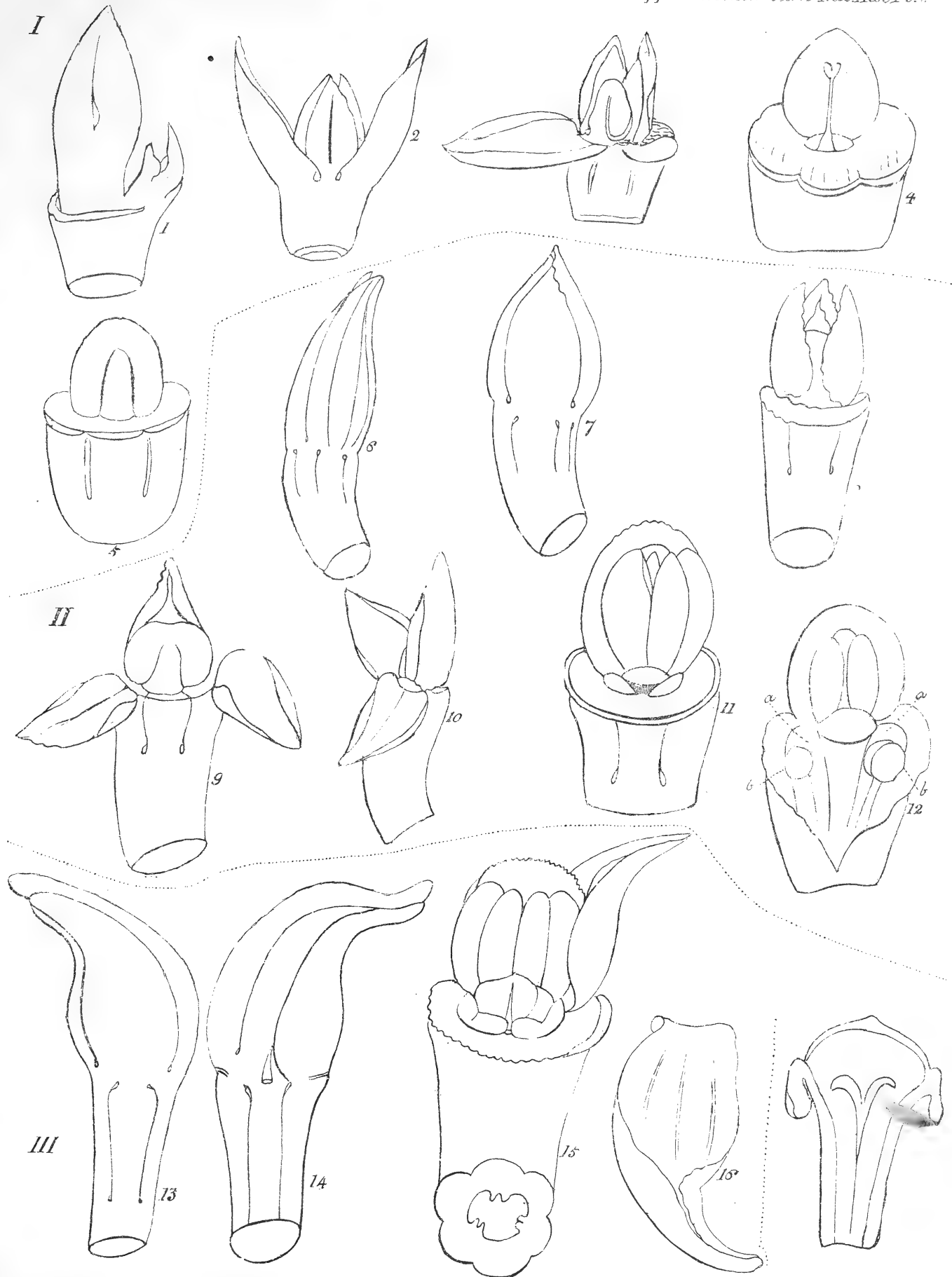


W Griffith del

*Passiflora kermesina.*







W. Griffith del.

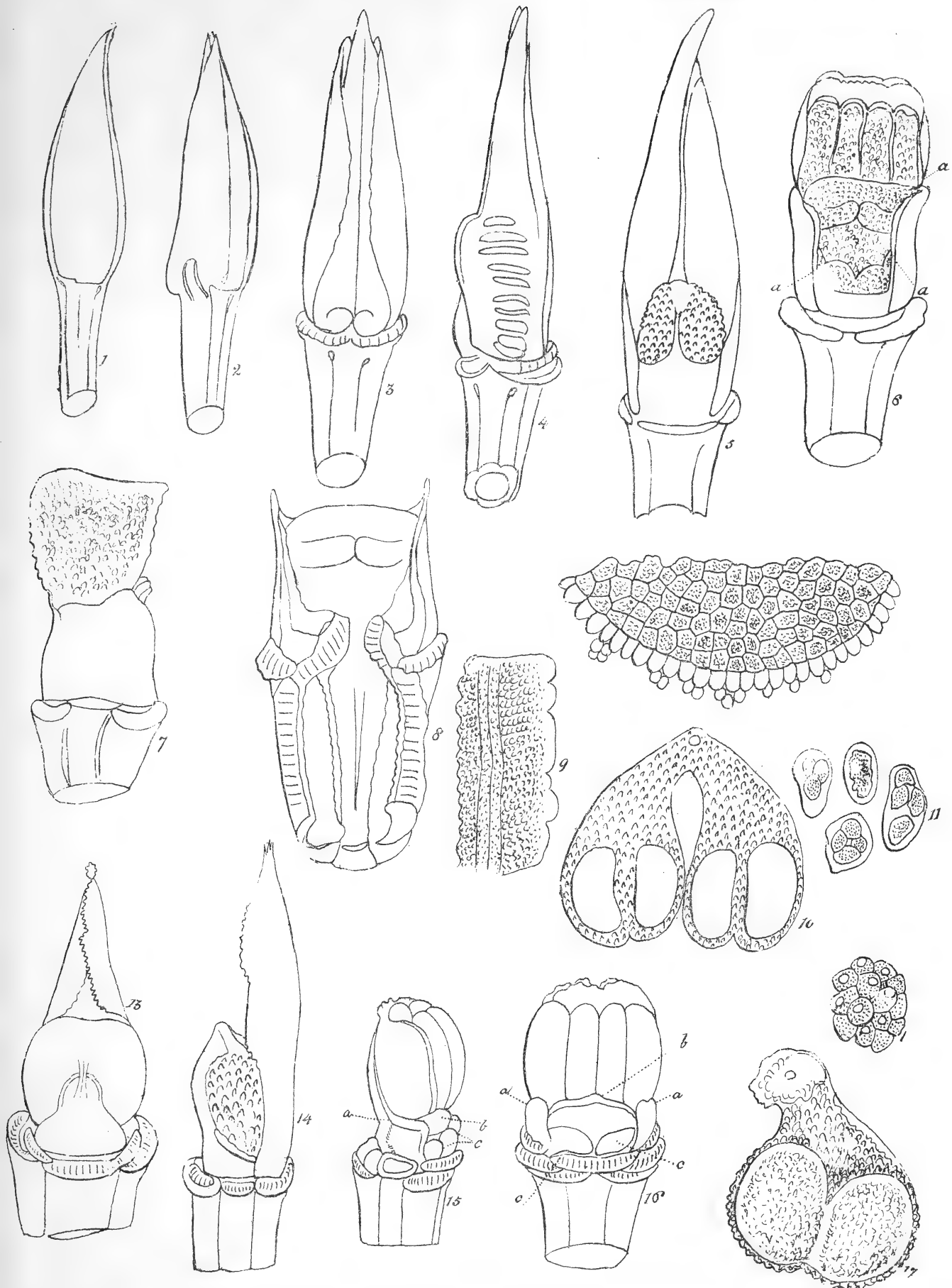
*Dendrobium Dalhousianum.*

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains.

1

•



W. Griffiths del.

*Dendrobium Dalhousianum.*





1



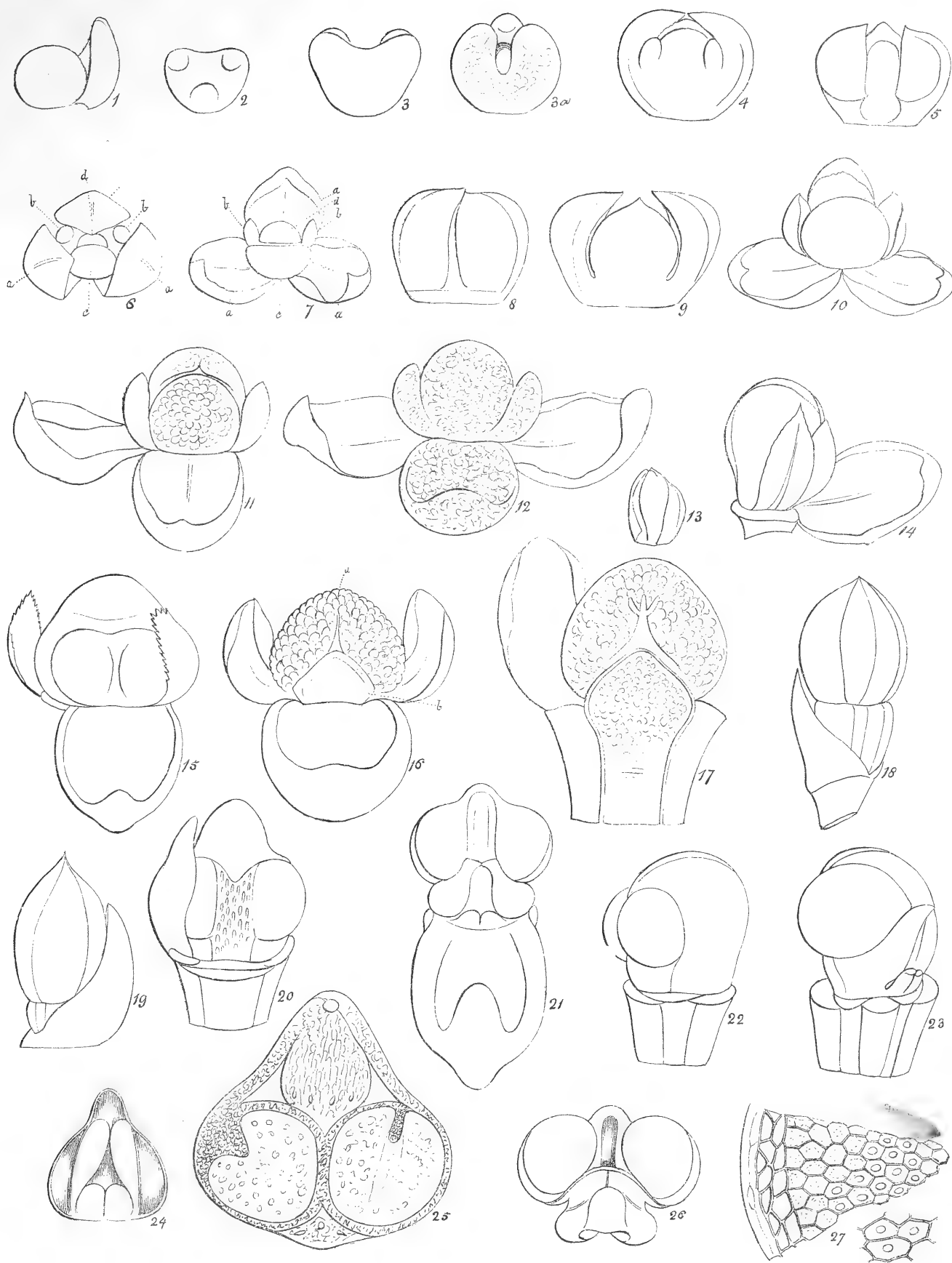
W. Griffith del.

*Pseudobombus Dalhousianum.*

Hon. Cos. Bot Gard April 1845



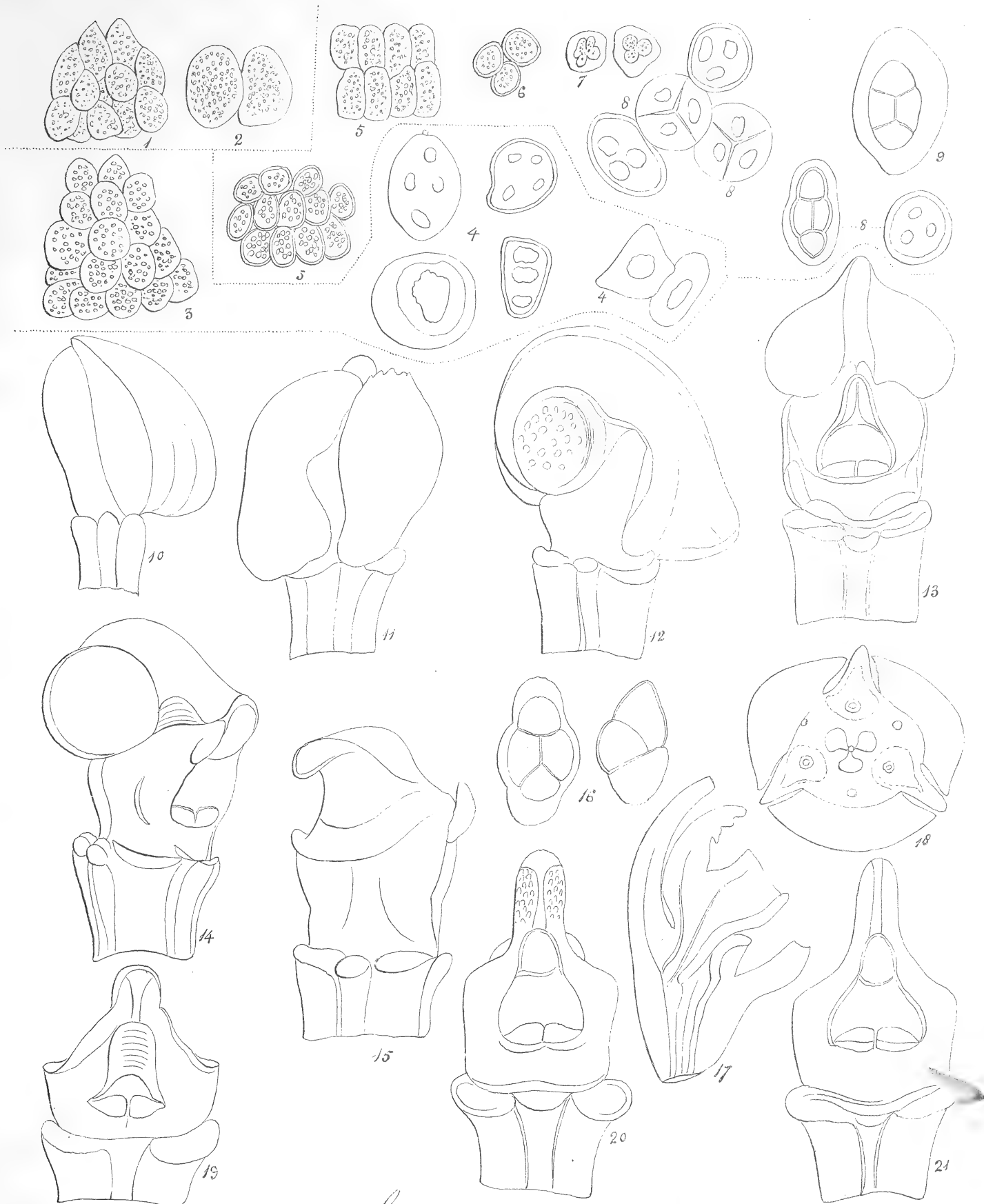




W. Griffith del.

*Saccolabium Guttatum*

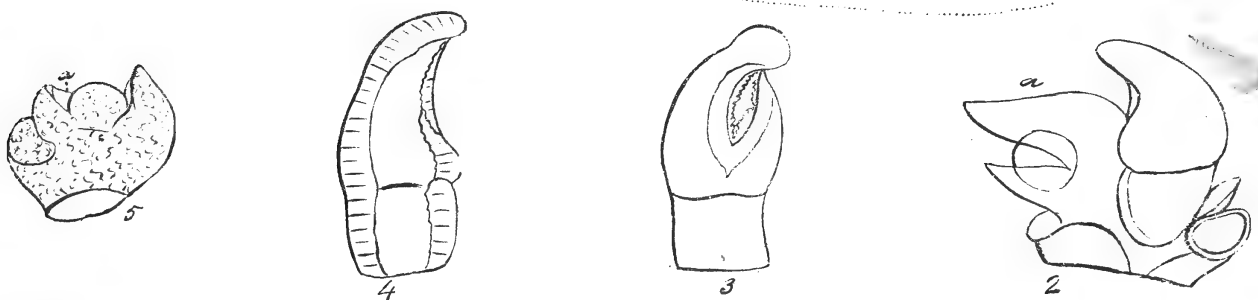
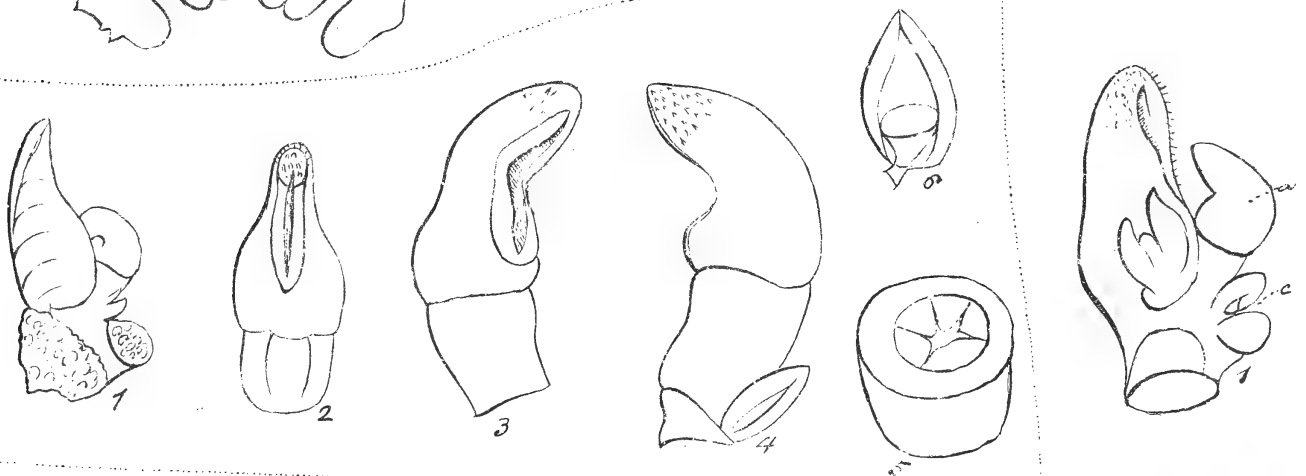




W. Griffith del. April. 19<sup>th</sup>. 1841

*Saccolabium pullatum.*





W. Griffith del.

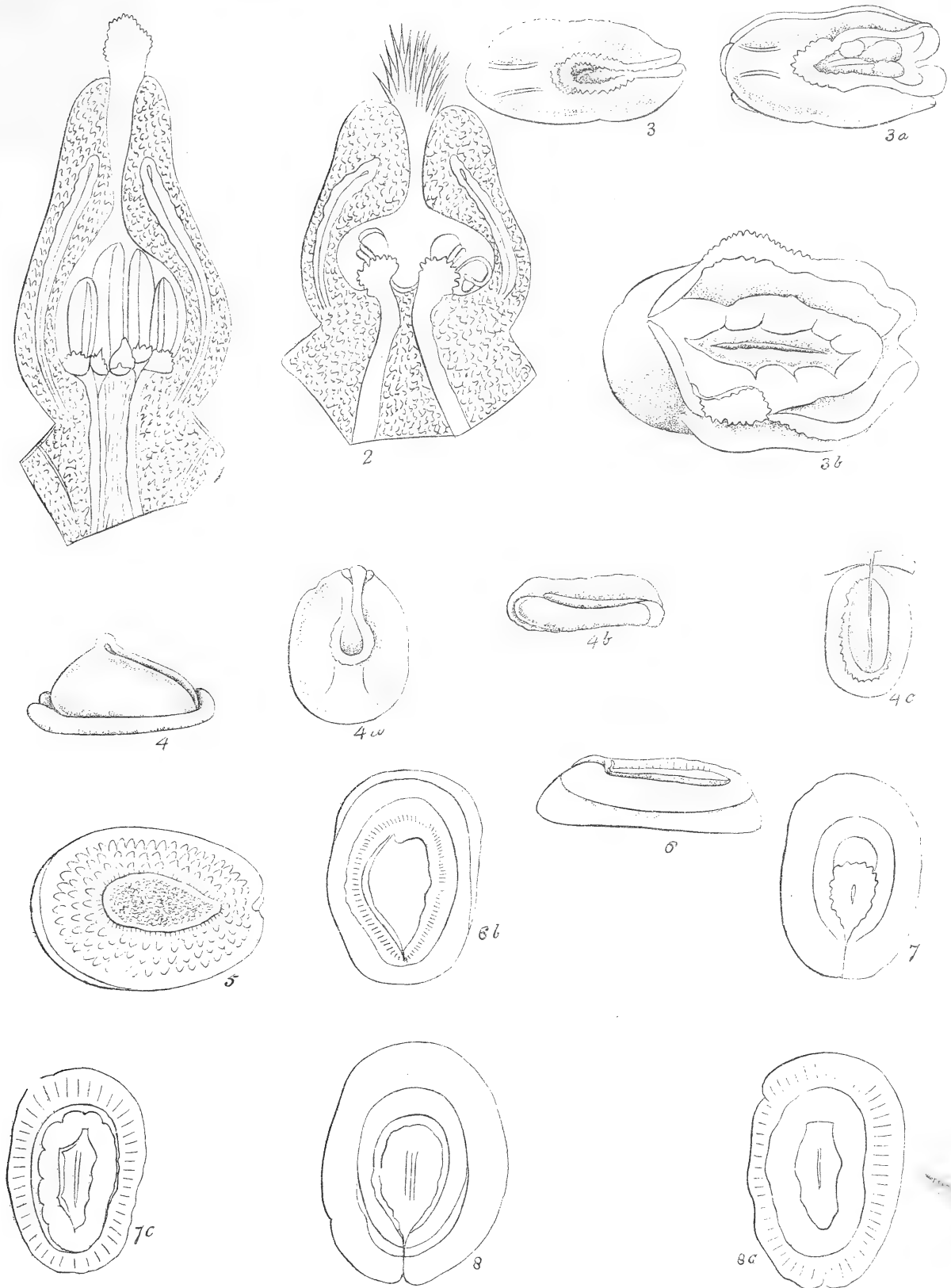
*Aristolochia Labiosa.*











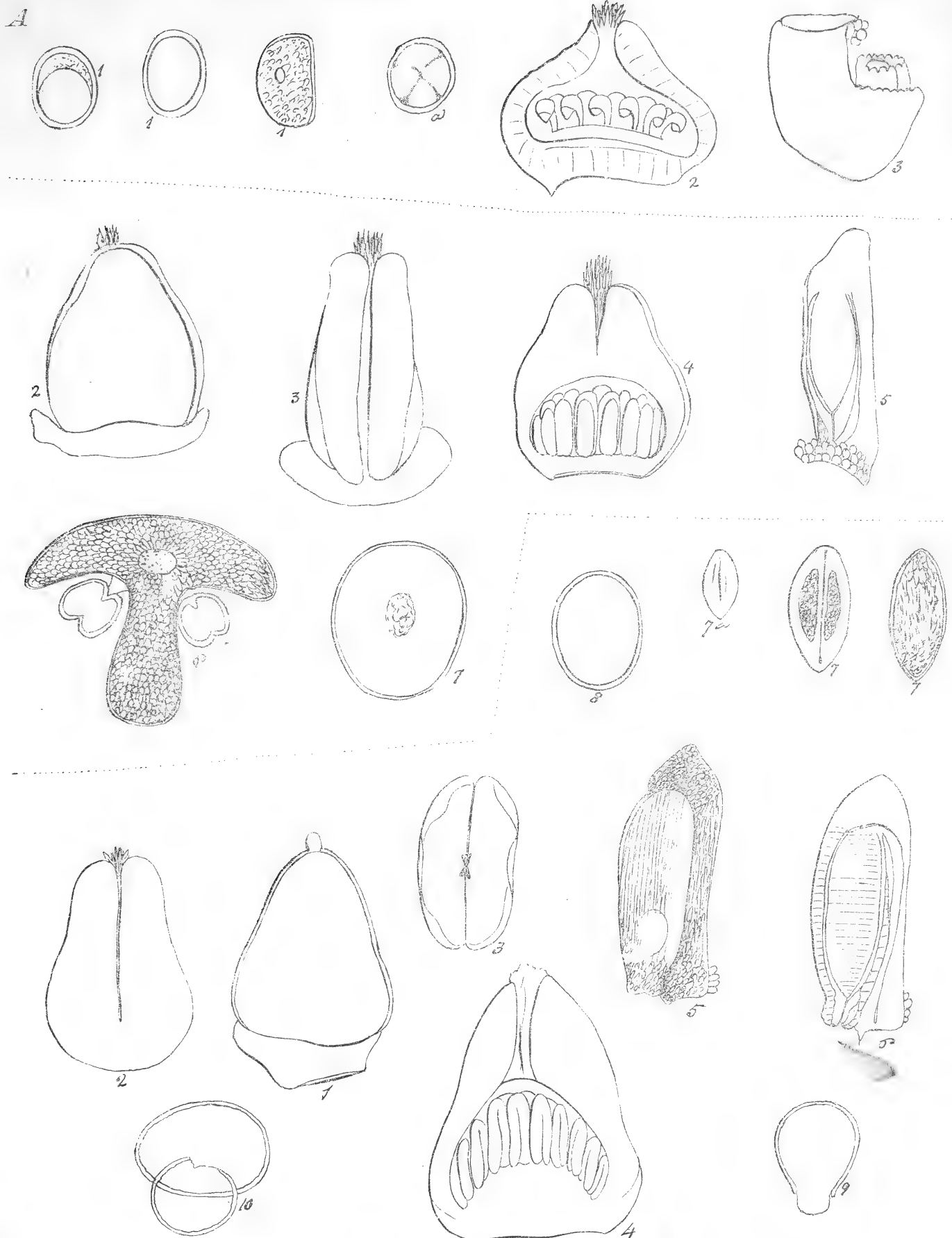
W. Griffith del.

*Roxburghia Viridiflora.*

Hon. C. S. Bot. Garden. 28<sup>th</sup> Feb. 1843.



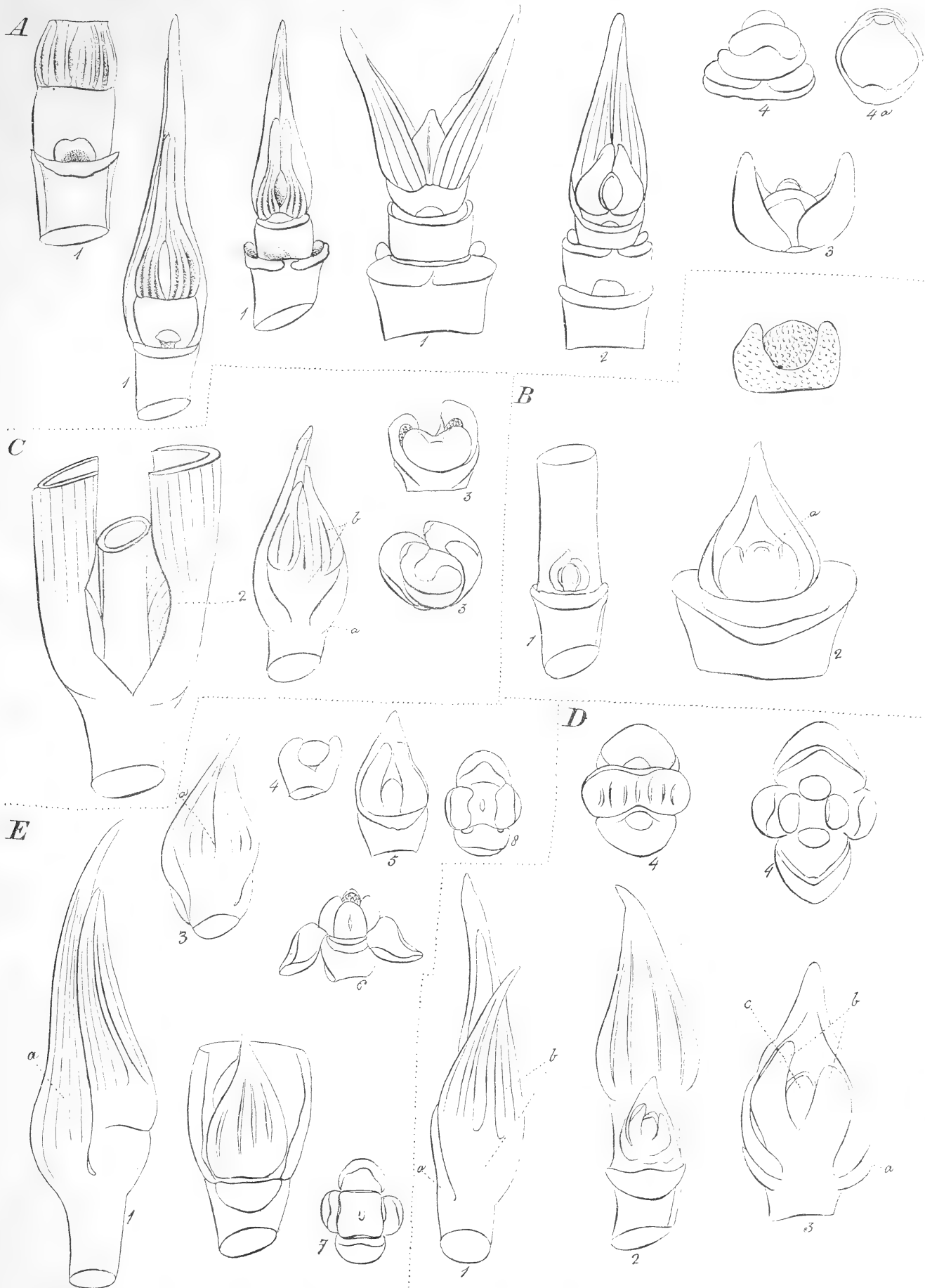




W. Griffith del.

*Roxburghia Viridiflora*



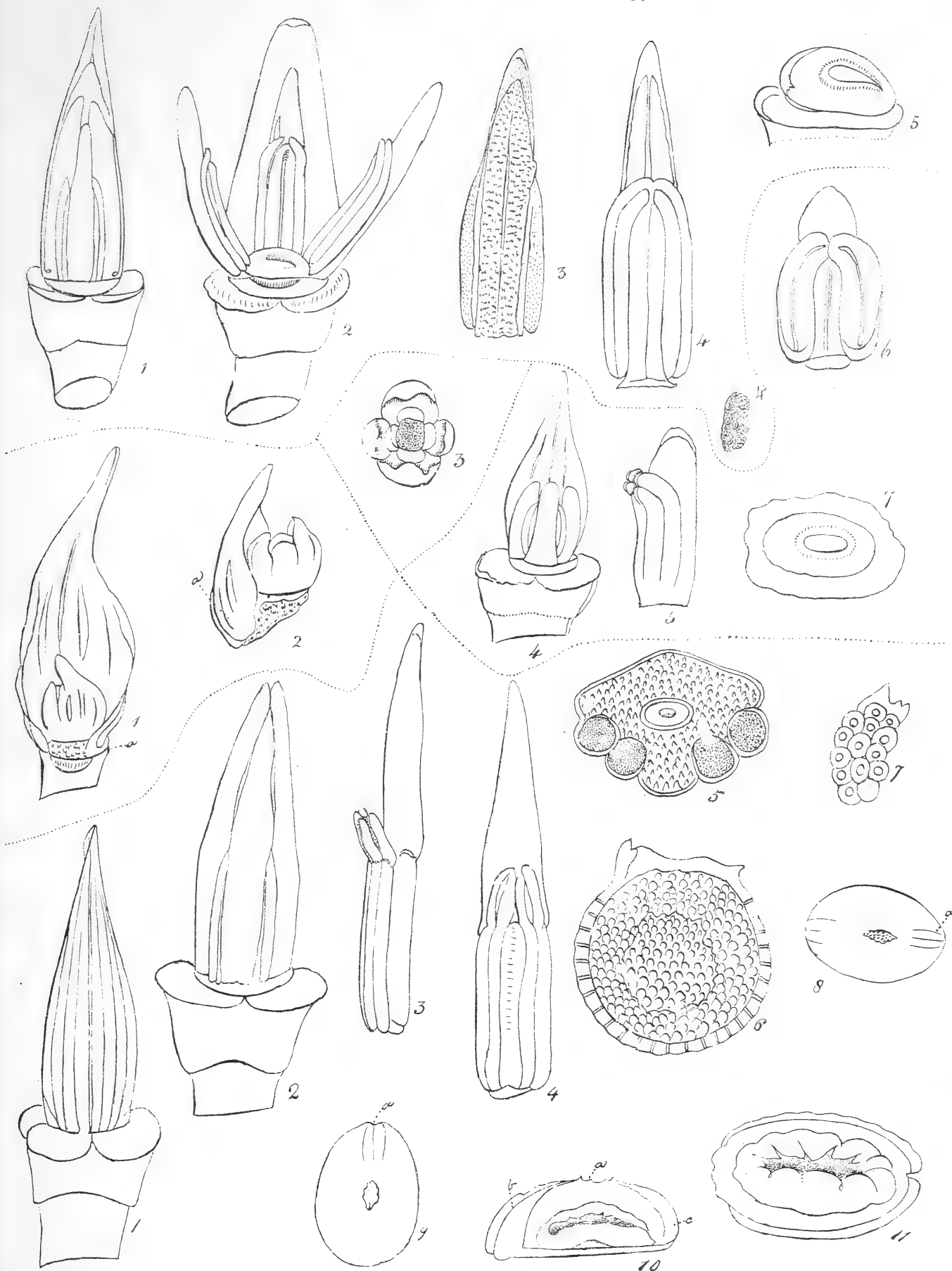


W. Griffith del.

*Roxburghia Viridiflora.*

H. Cos. Bot. Garden 28<sup>th</sup> Feb. 43.



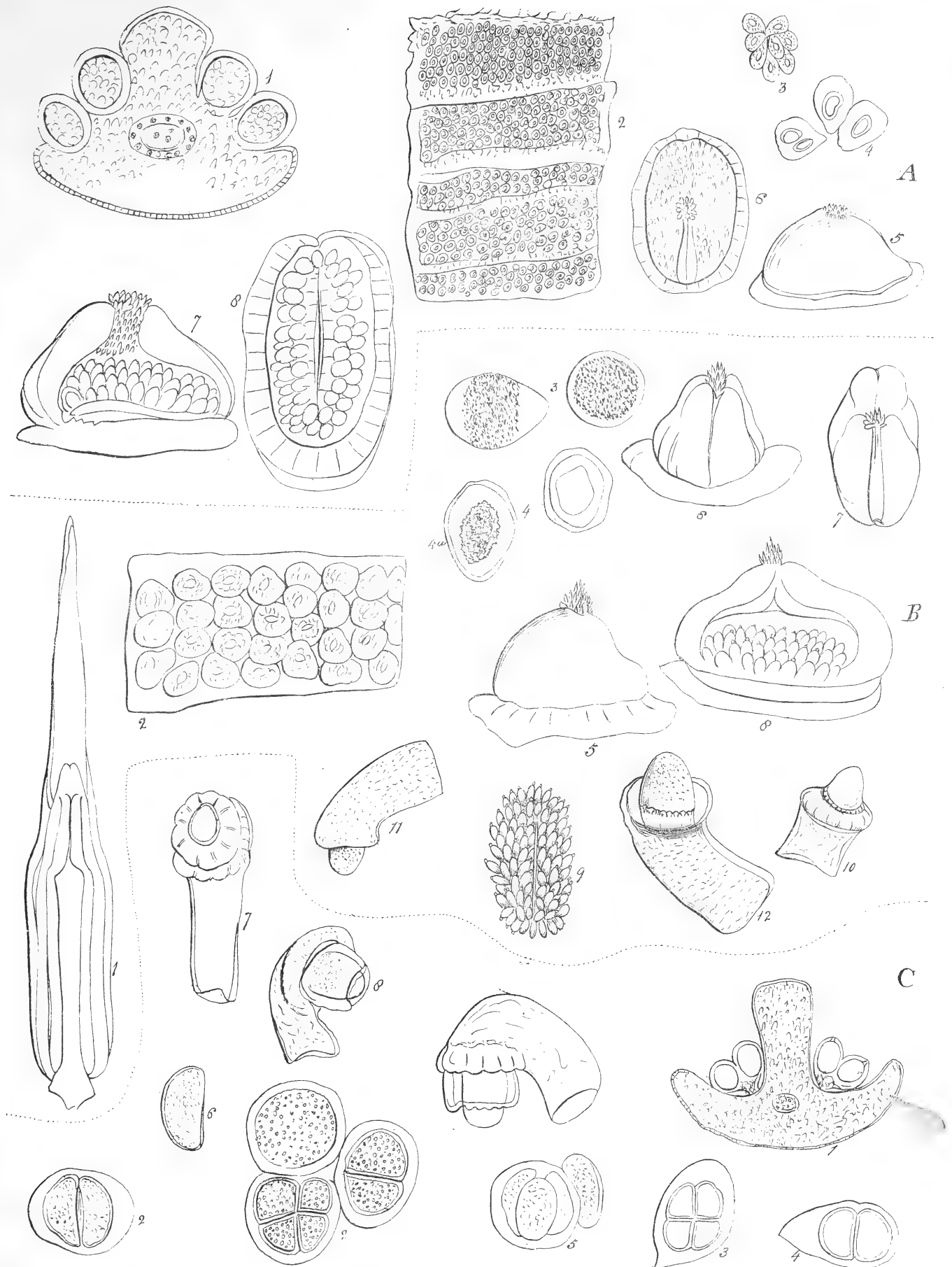


W. Griffith del.

*Roxburghia Viridiflora*







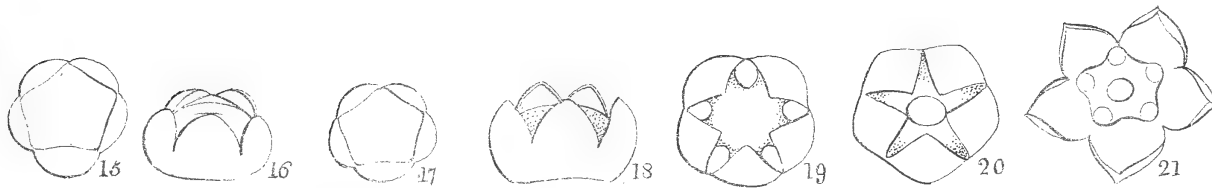
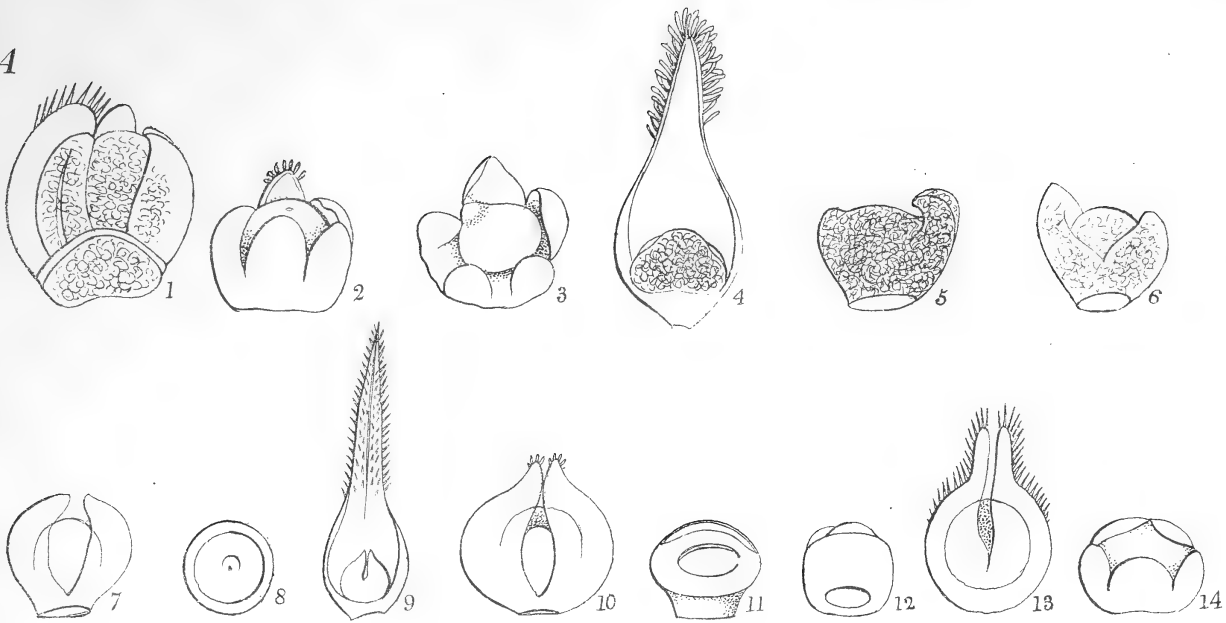
W. Griffith del.

H. Cos. Bot. Garden. 27<sup>th</sup> Feb. '43.

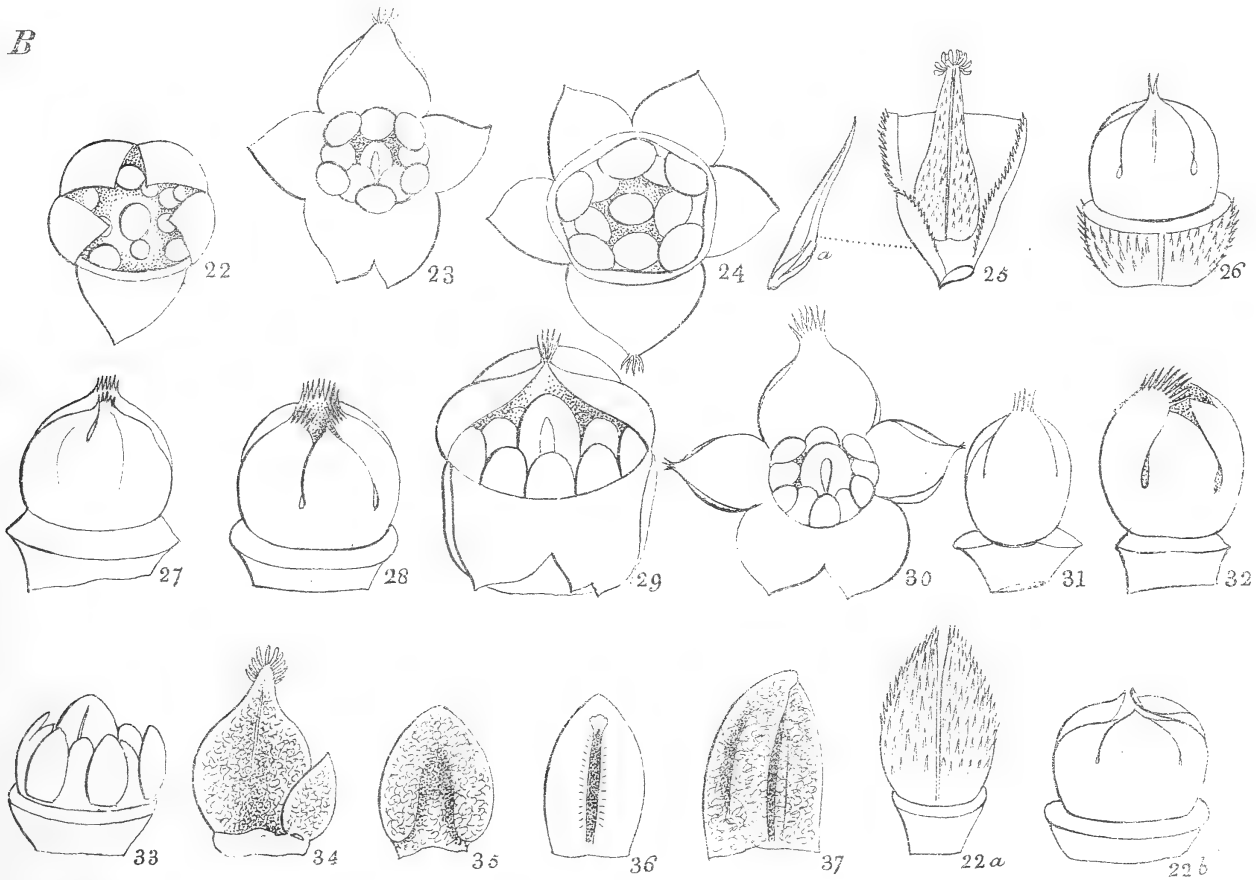
*Roxburghia Viridiflora.*



A



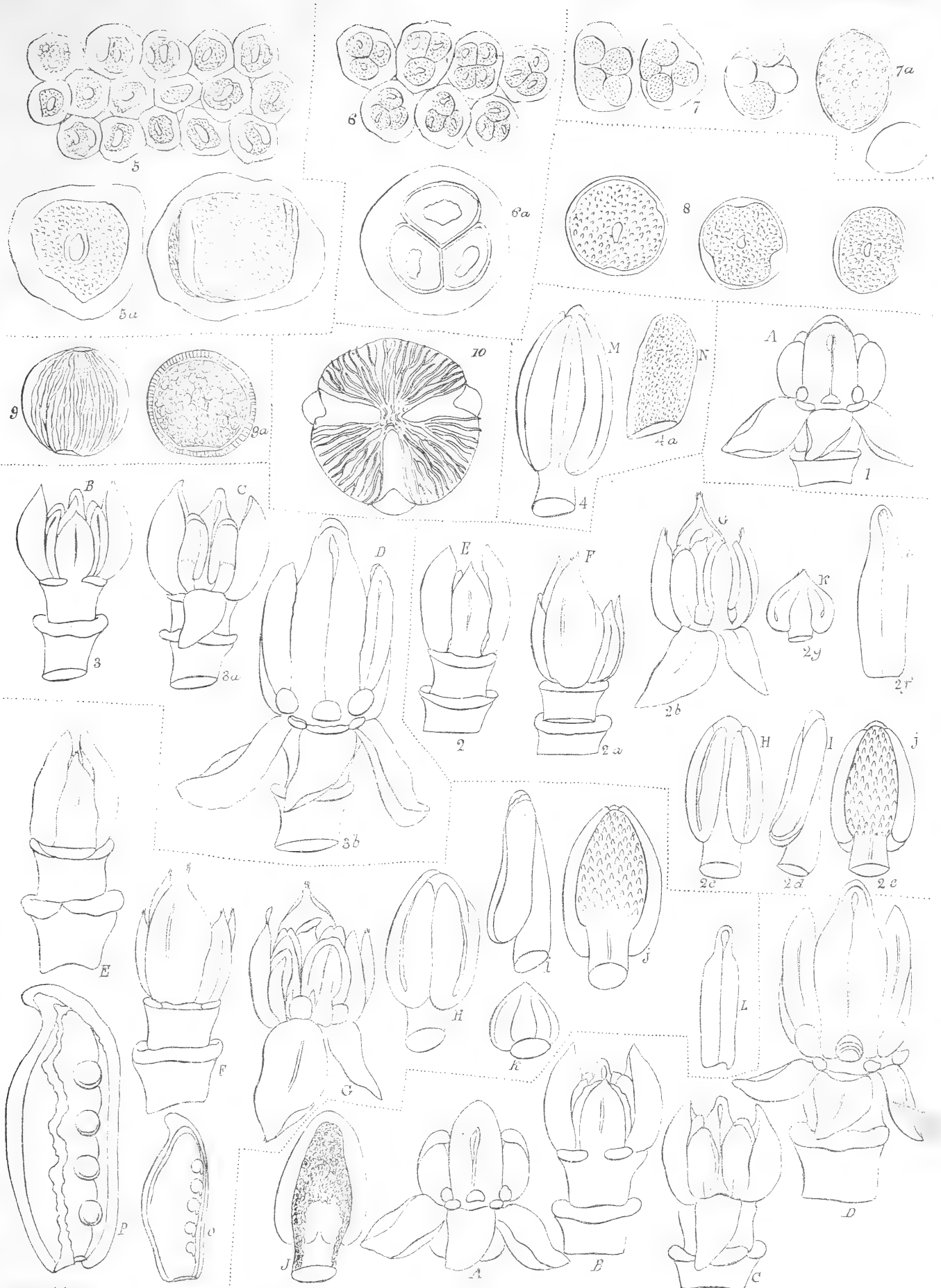
B



W. Griffith del.

*Amherstia Nobilis*





W Griffith del.

*Amherstia nobilis.*

Hon. Co's Bot. Gard. Feb'y 20<sup>th</sup> 1843







W. Griffith del.

*Amherstia nobilis.*

Hon. C. S. Bot. Gard. 21<sup>st</sup> Feb 1843.

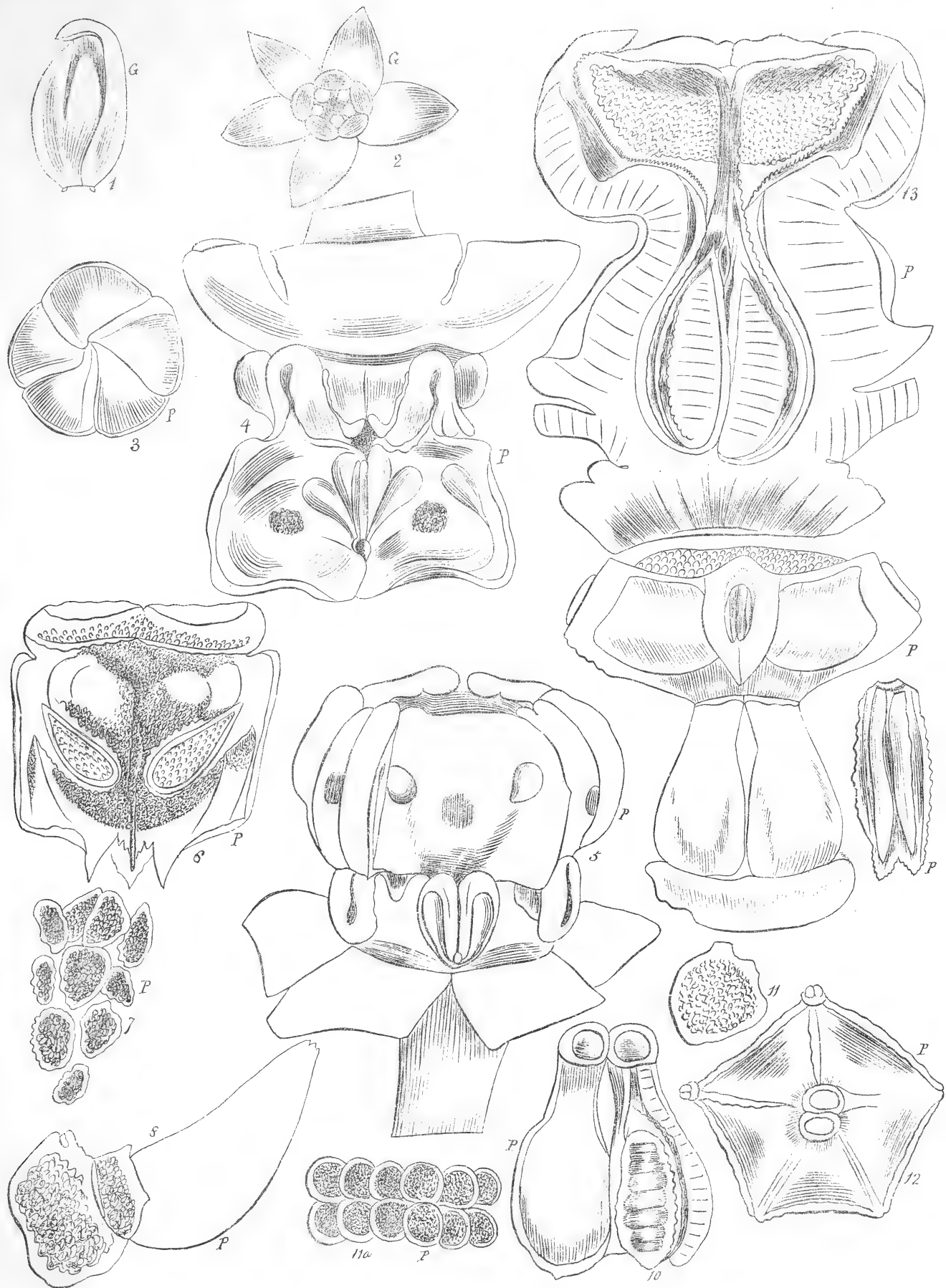




W Griffith del.

*Calotropis procera.*



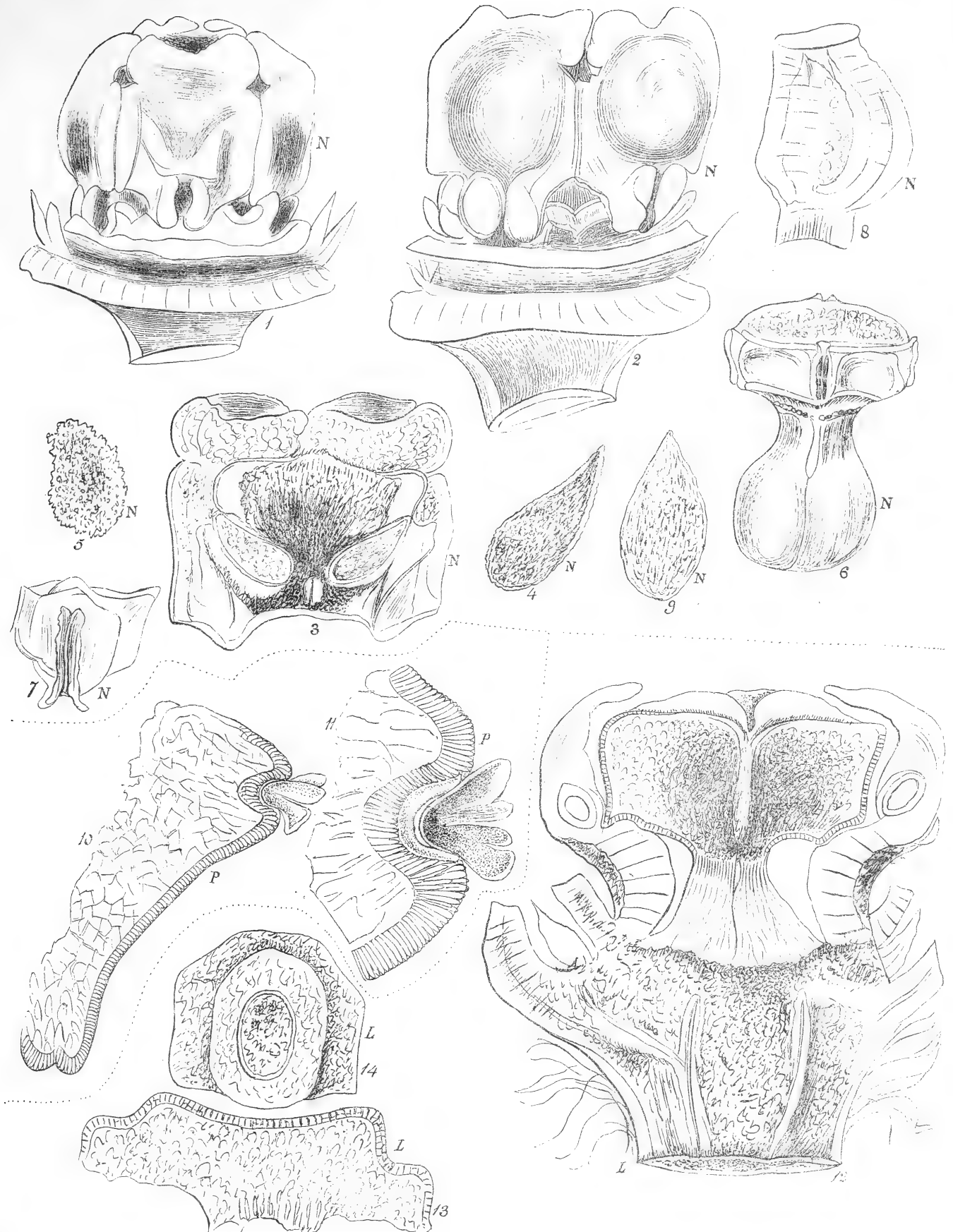


W. Griffith del.

*Calotropis procera.*

Hon. C. Bot. Gard. 10<sup>th</sup> April 1841

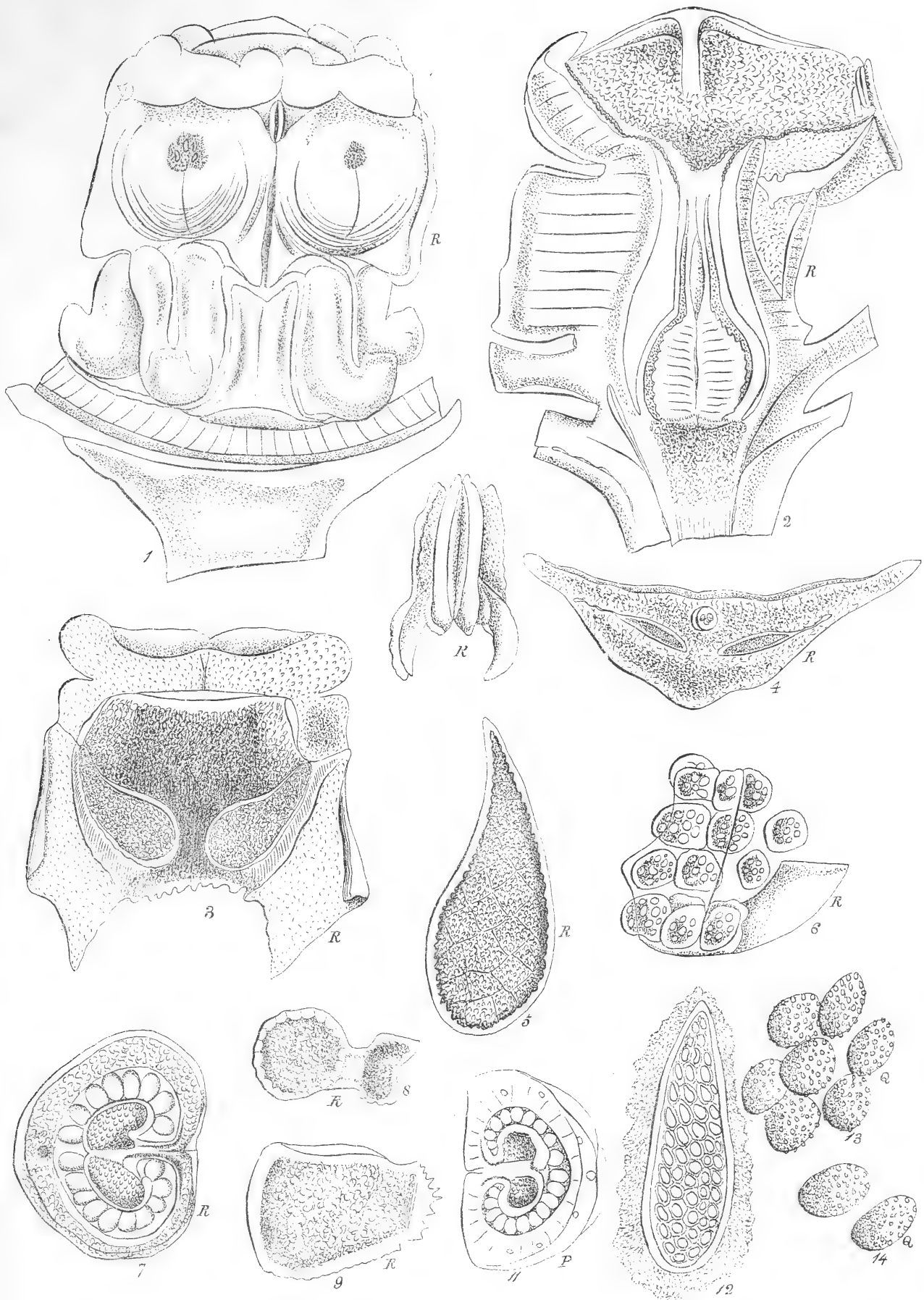




*Calotropis-procera.*





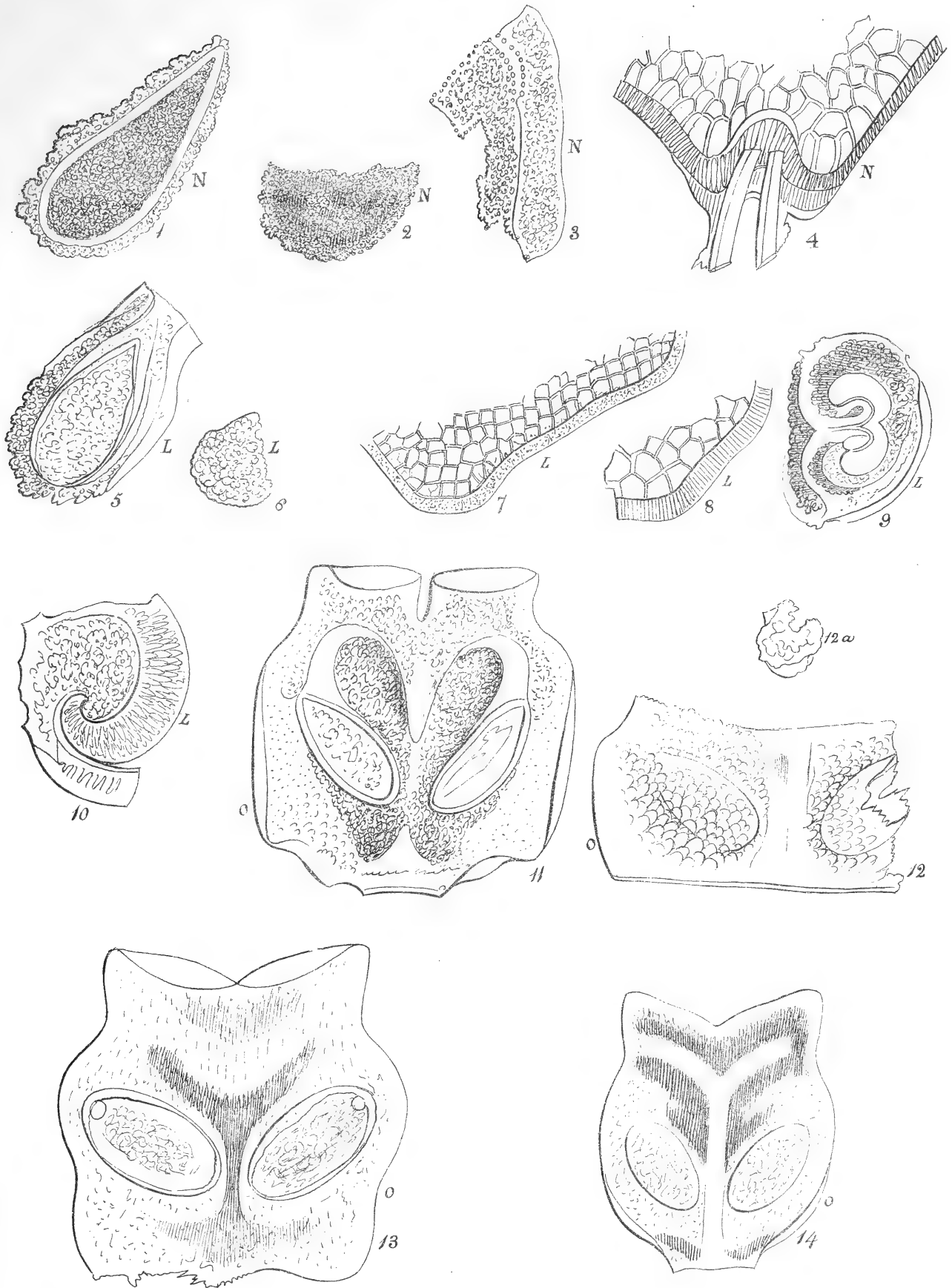


W. Griffith del.

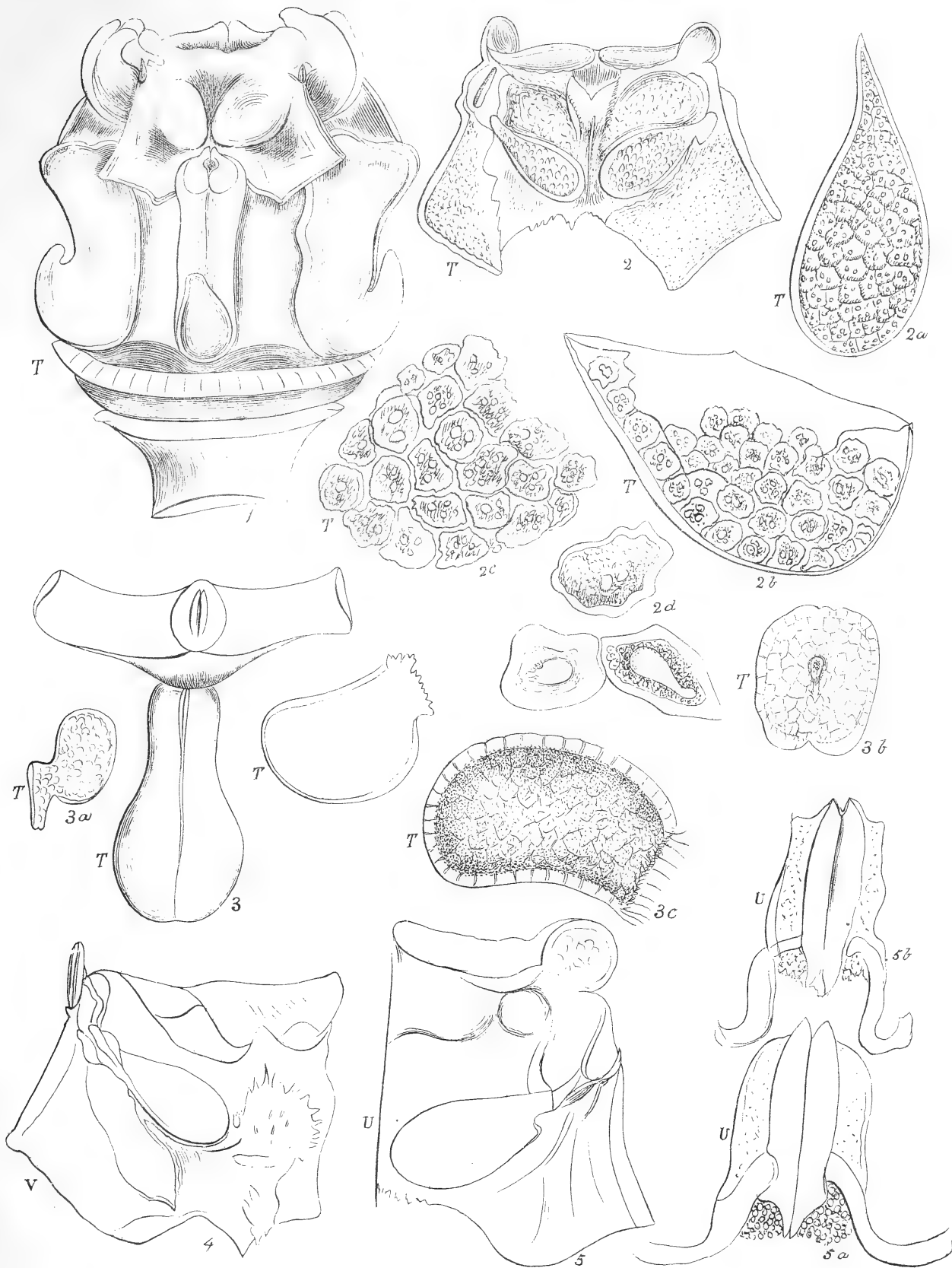
*Calotropis-procera.*

Hon. Gs. Bot. Gard. II<sup>th</sup> April 1841.







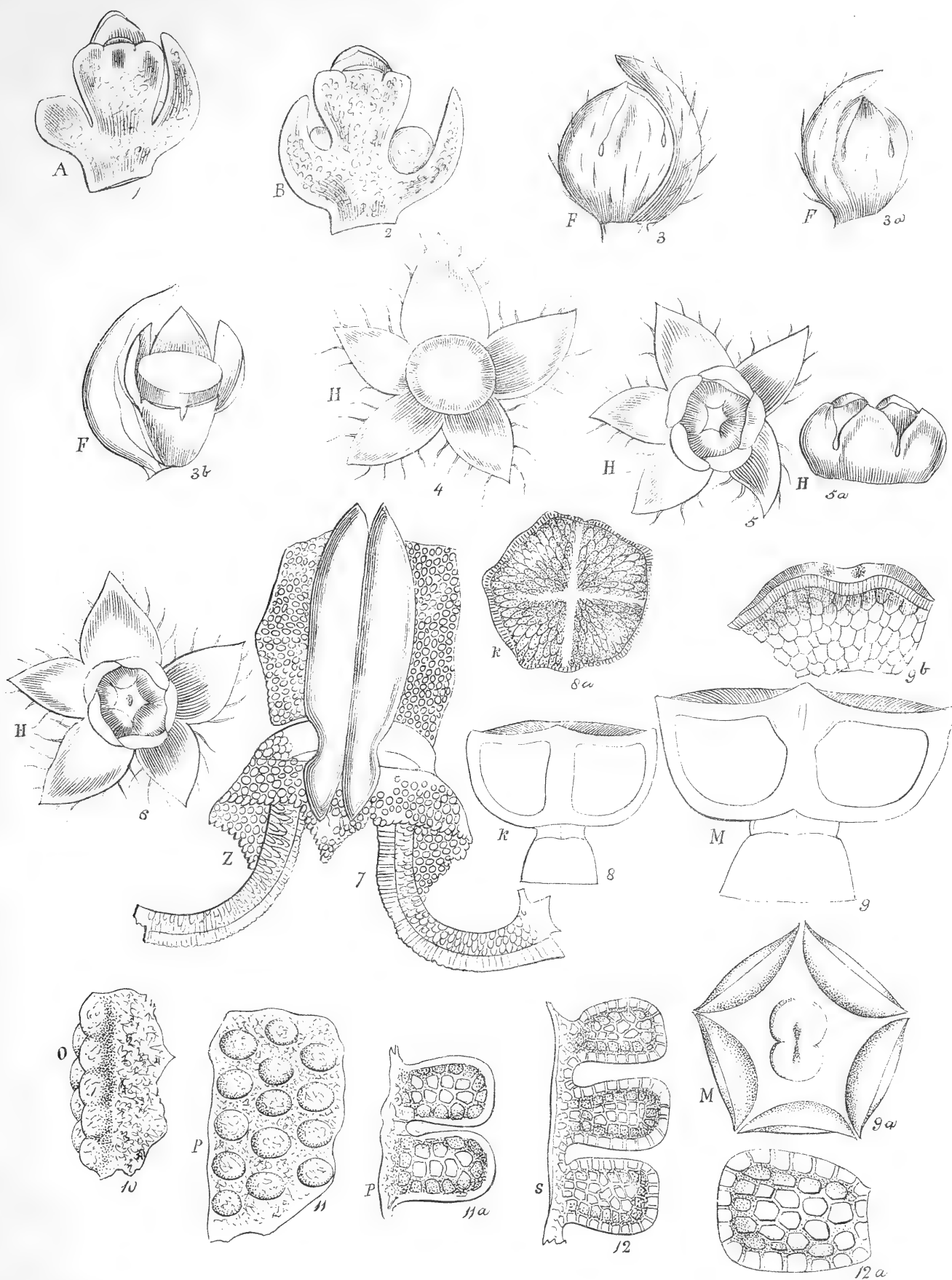


W. Griffith del.

*Calotropis procera.*

Hon. C. S. Bot. Gard. 13<sup>th</sup> March 1841.



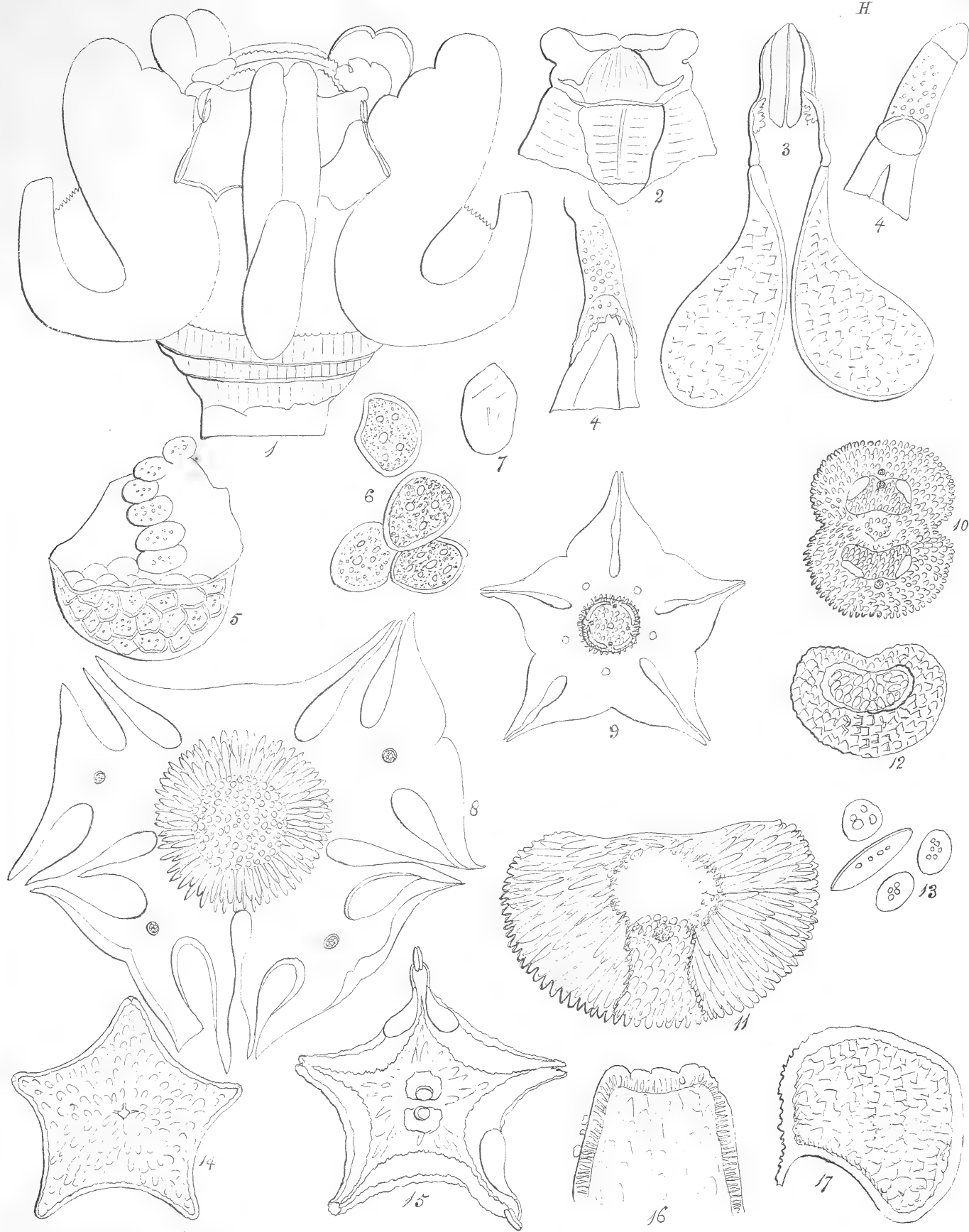


W. Griffith del.

*Calotropis procera.*

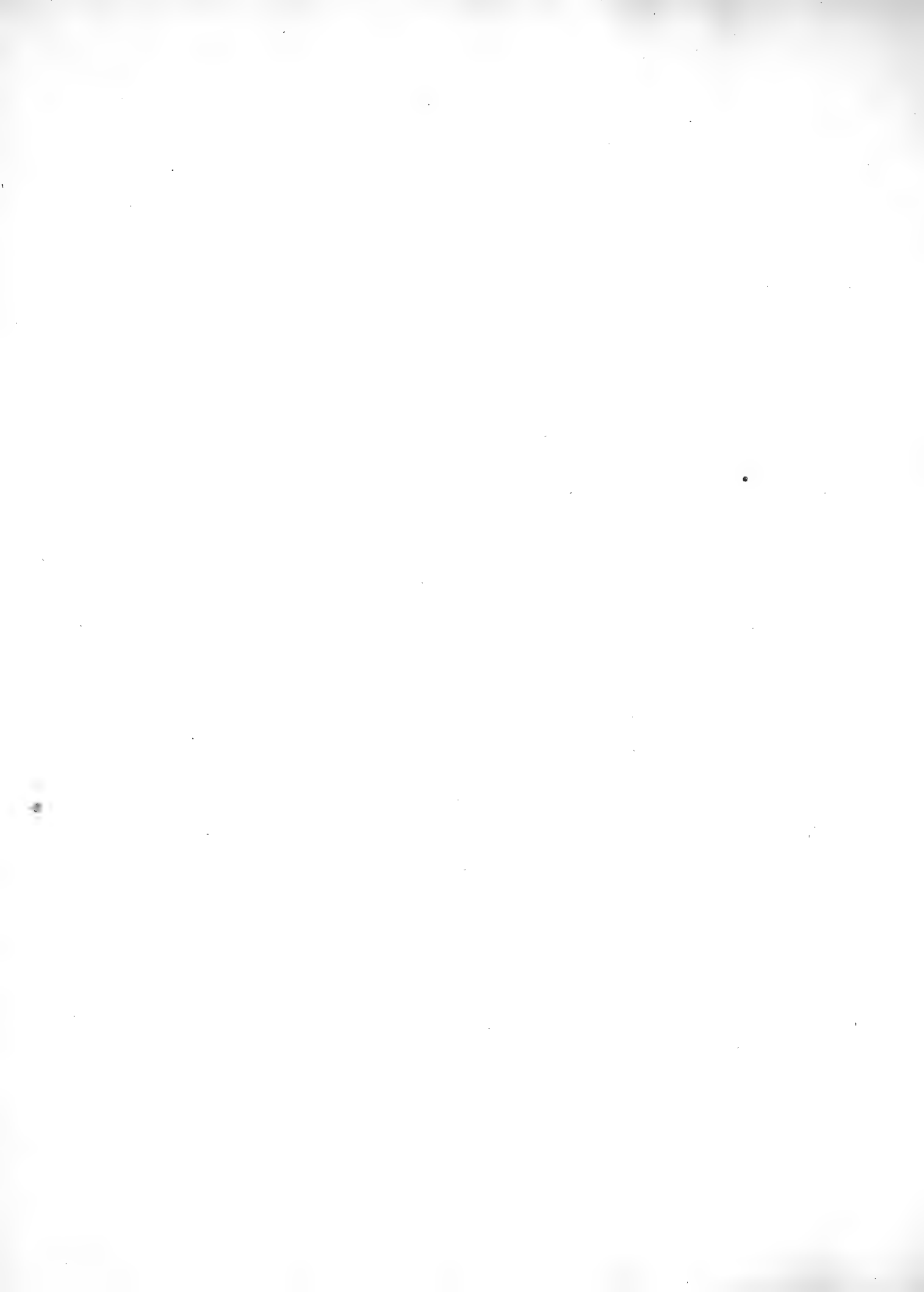


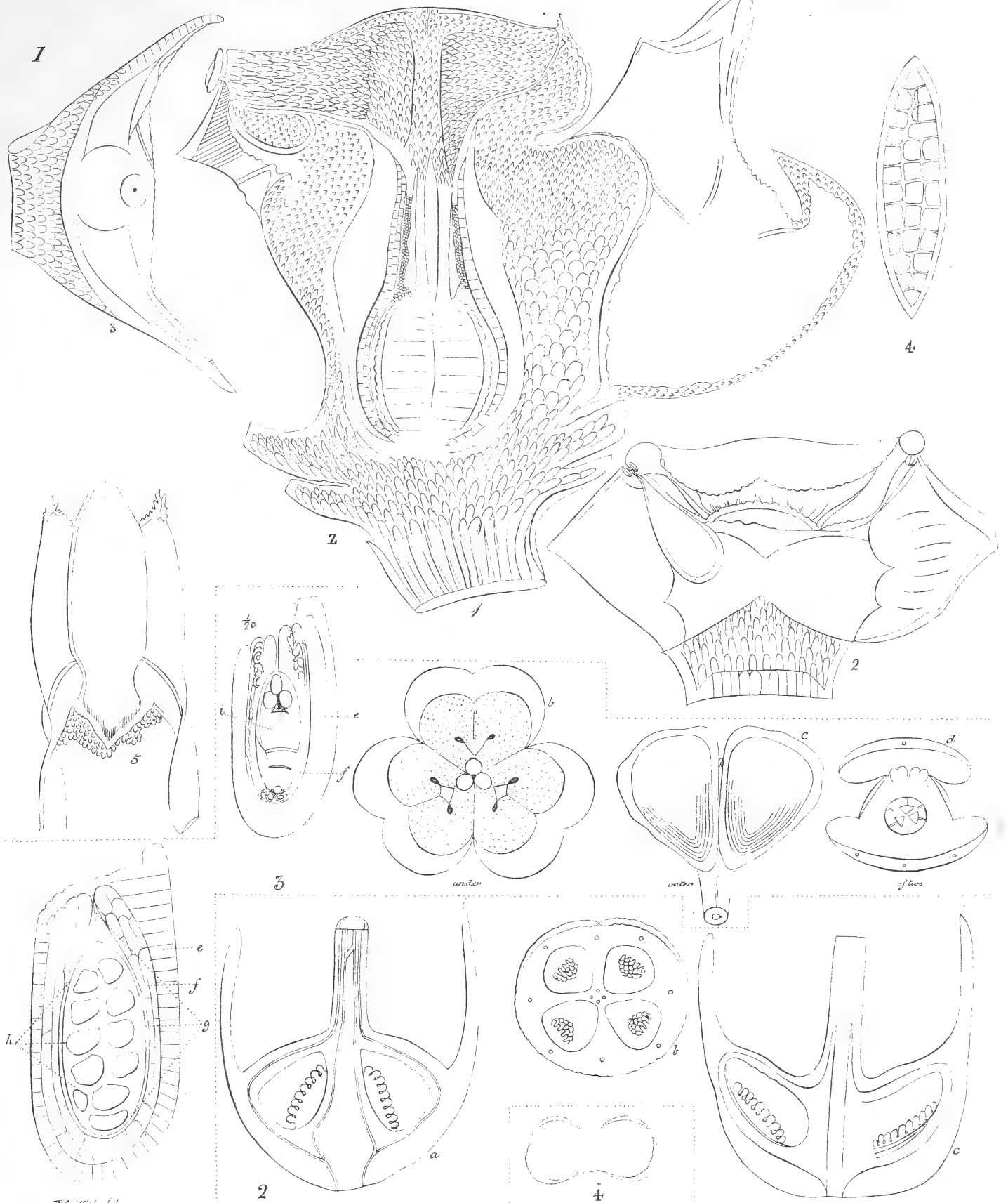




W. Griffith del. April 19<sup>th</sup> 1841.

*Calotropis procera.*

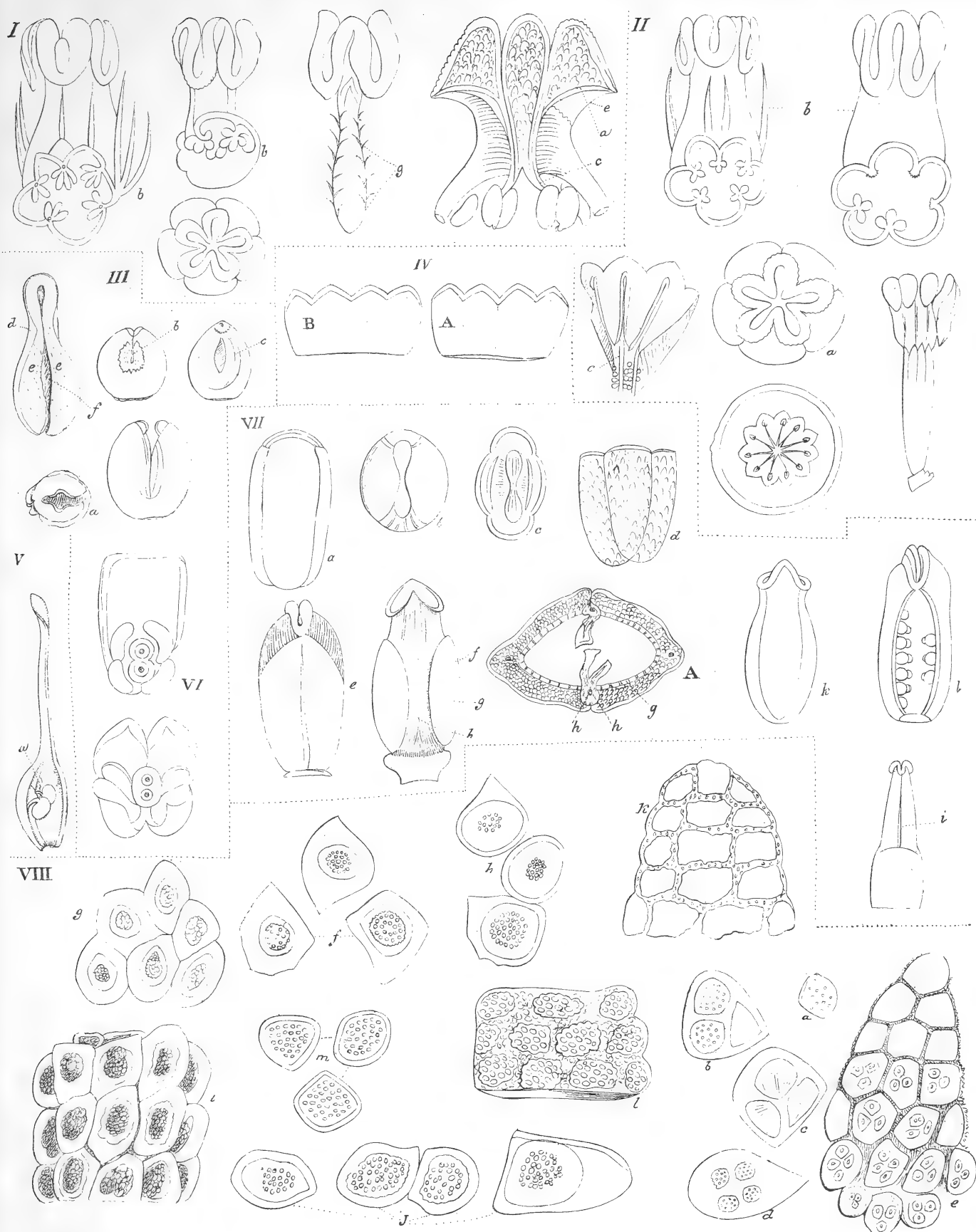




W. Griffith del.

I *Calotropis gigantea* II *Stereandra carulescens* III *Tacca pinnatifida*  
IV *Meyenia*.

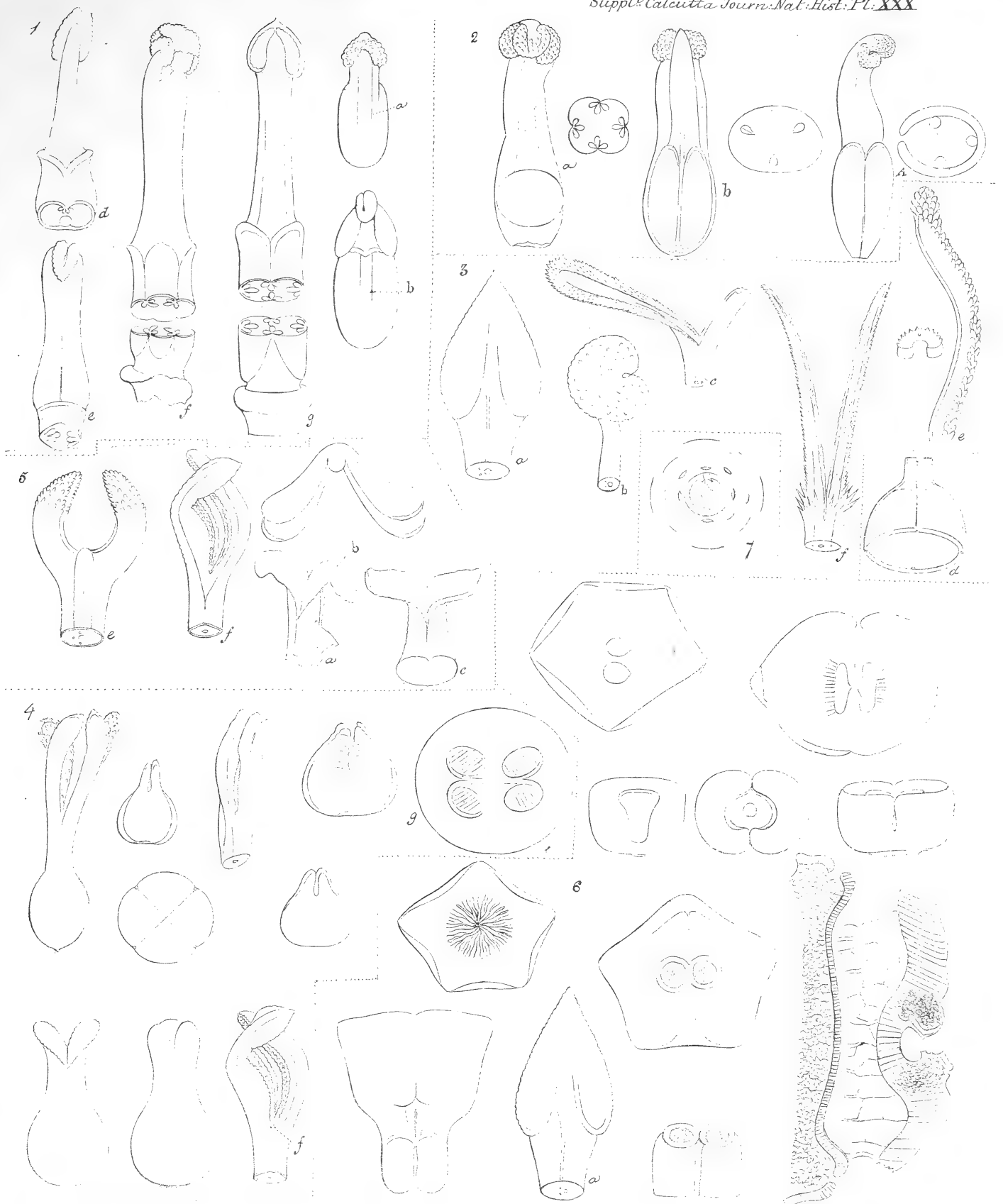




W Griffith del.

I. II. IV. *Papaveraceæ* III. *Erythraea* V. *Melilotus* VI. *Veronica* VII. *Cruciferae*.  
VIII. *Villarsia*.



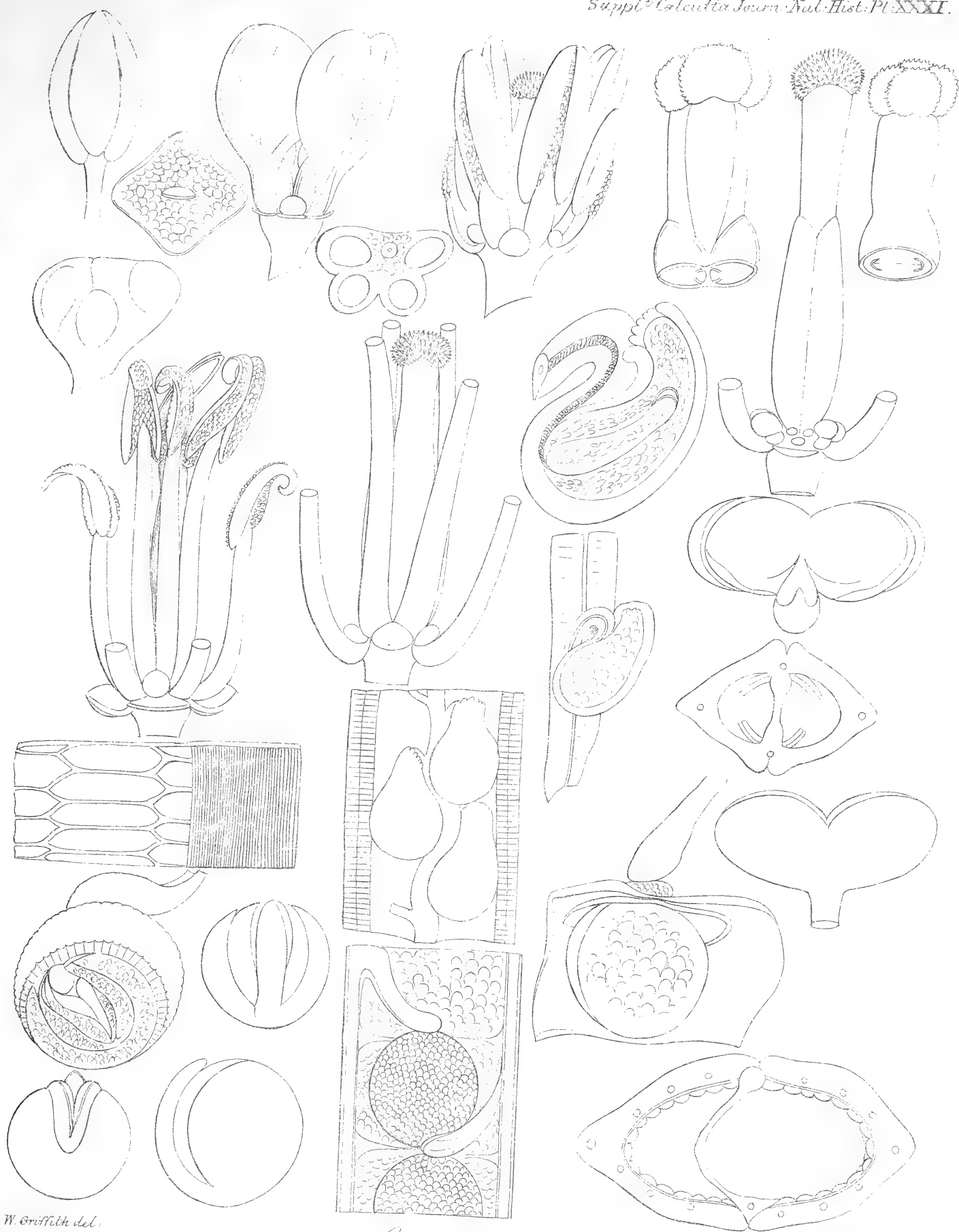


W. H. H. del.

I. II. VII. *Cruciferae*, V. *Bilobed styles*, III. *Linear stigmatic surfaces*  
 IV. *Cordia*, VI. *Clerodendrum*.





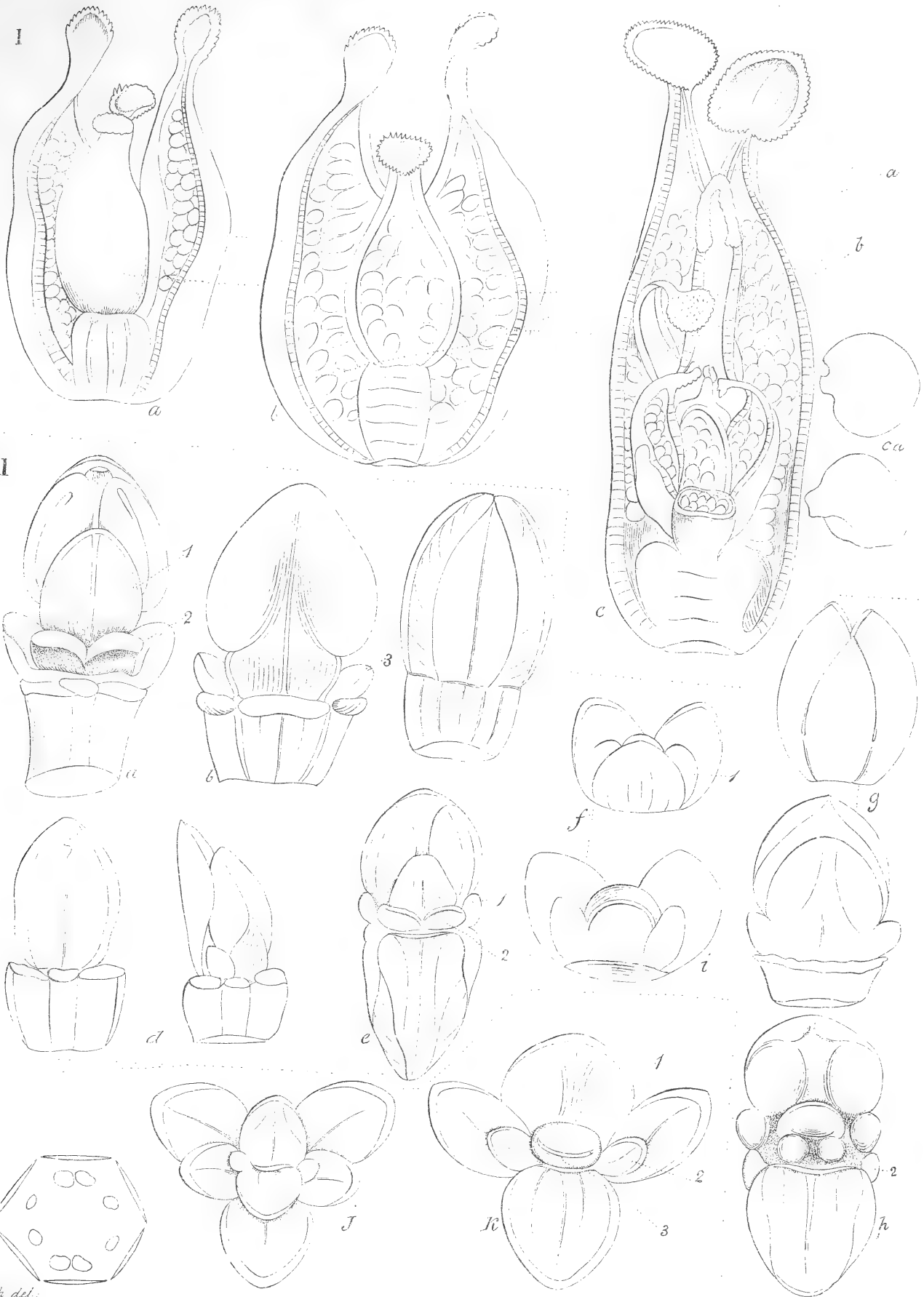


W. Griffith del.

*Cruciferae*

Hon. C. B. Gard. March 7<sup>th</sup> 1836.





W. Griffith del.

1 Swertia. II, III Orchideae

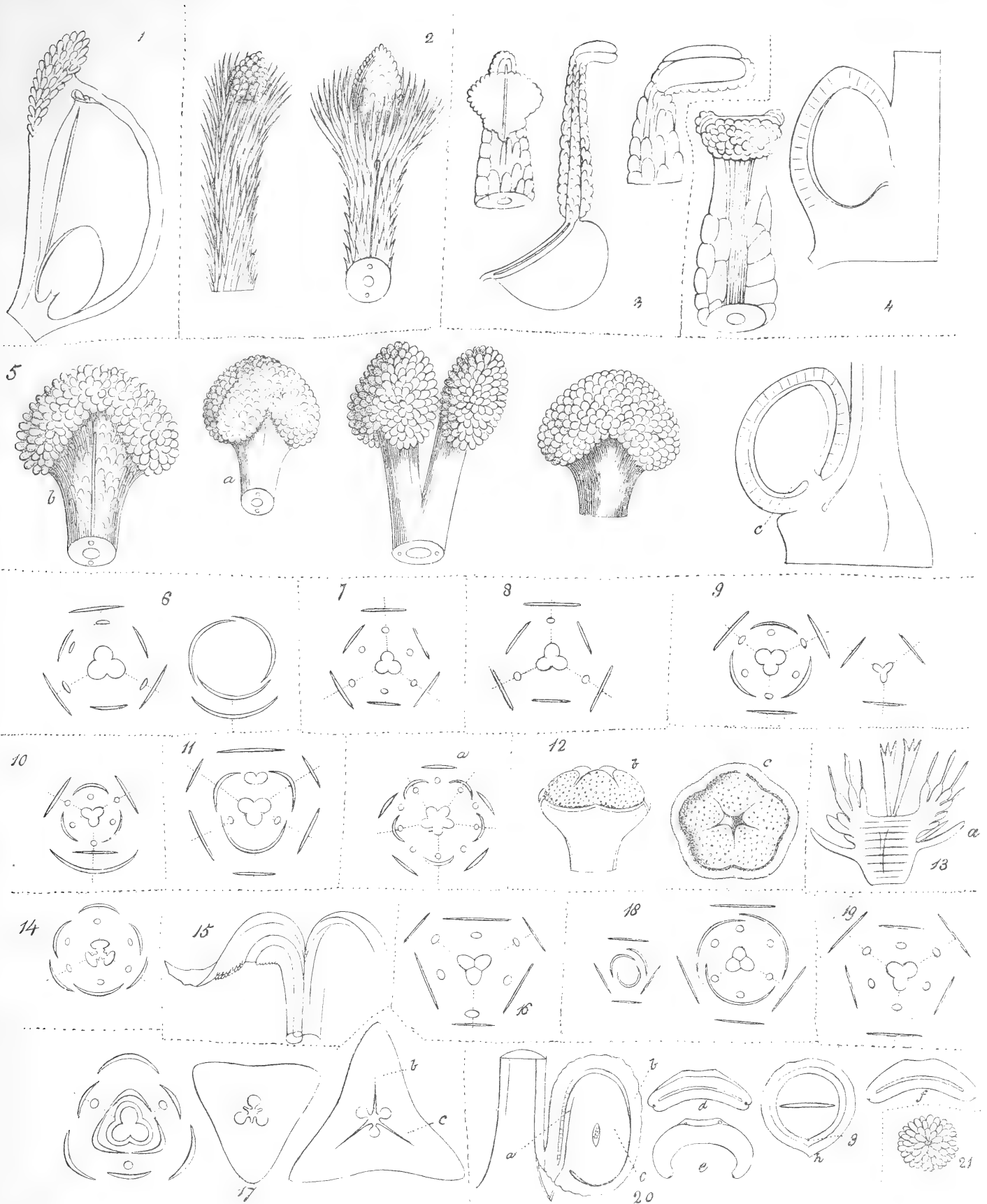




W. Griffiths del.

# Stigmata



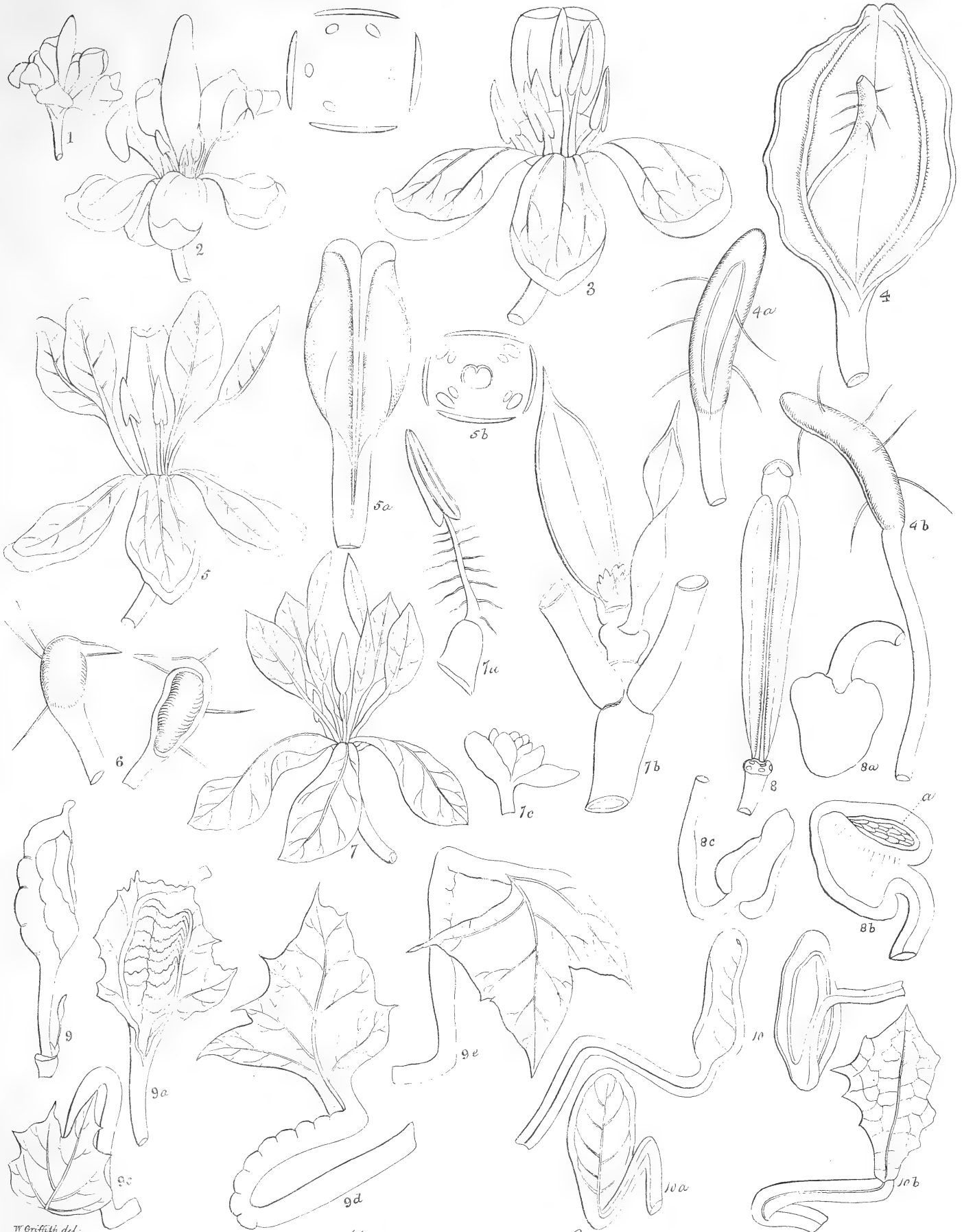


W. Griffith del.

Stigmata and other parts of the Flower.



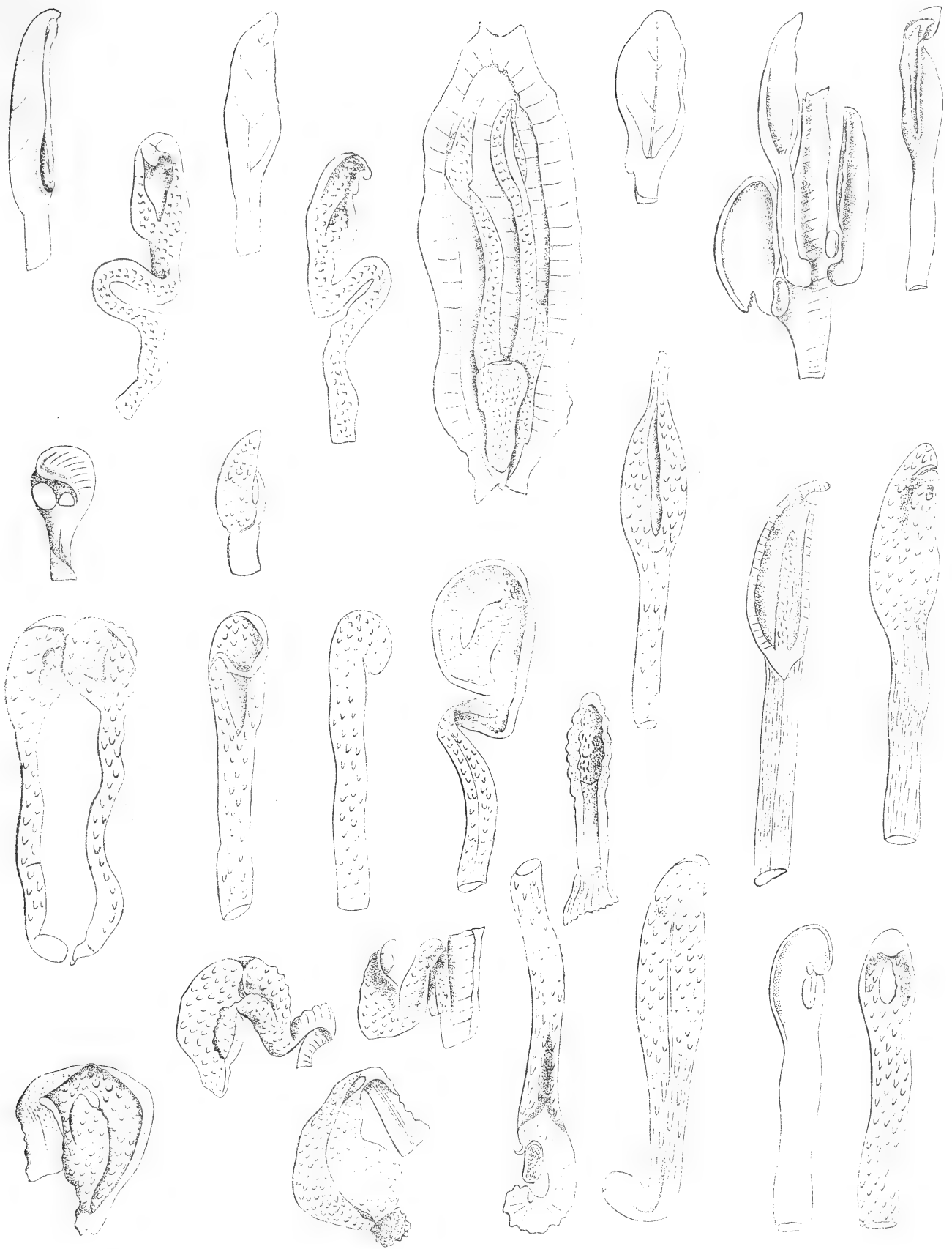




W Griffith del.

*Monstrosity of Sinapis.*

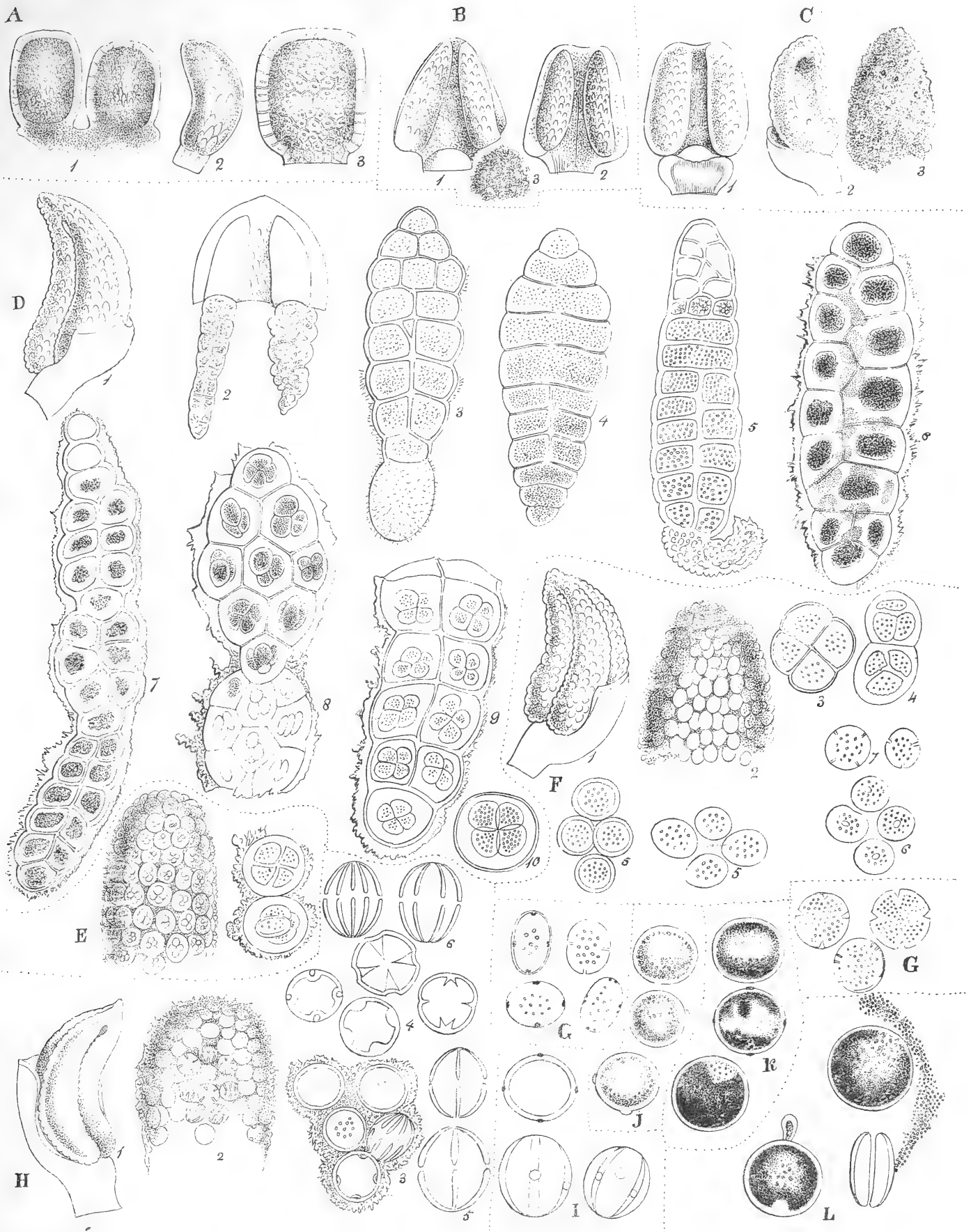




W. Griffith del.

Metamorphosis into Leaves of the Ovula of a *Lonicera*.

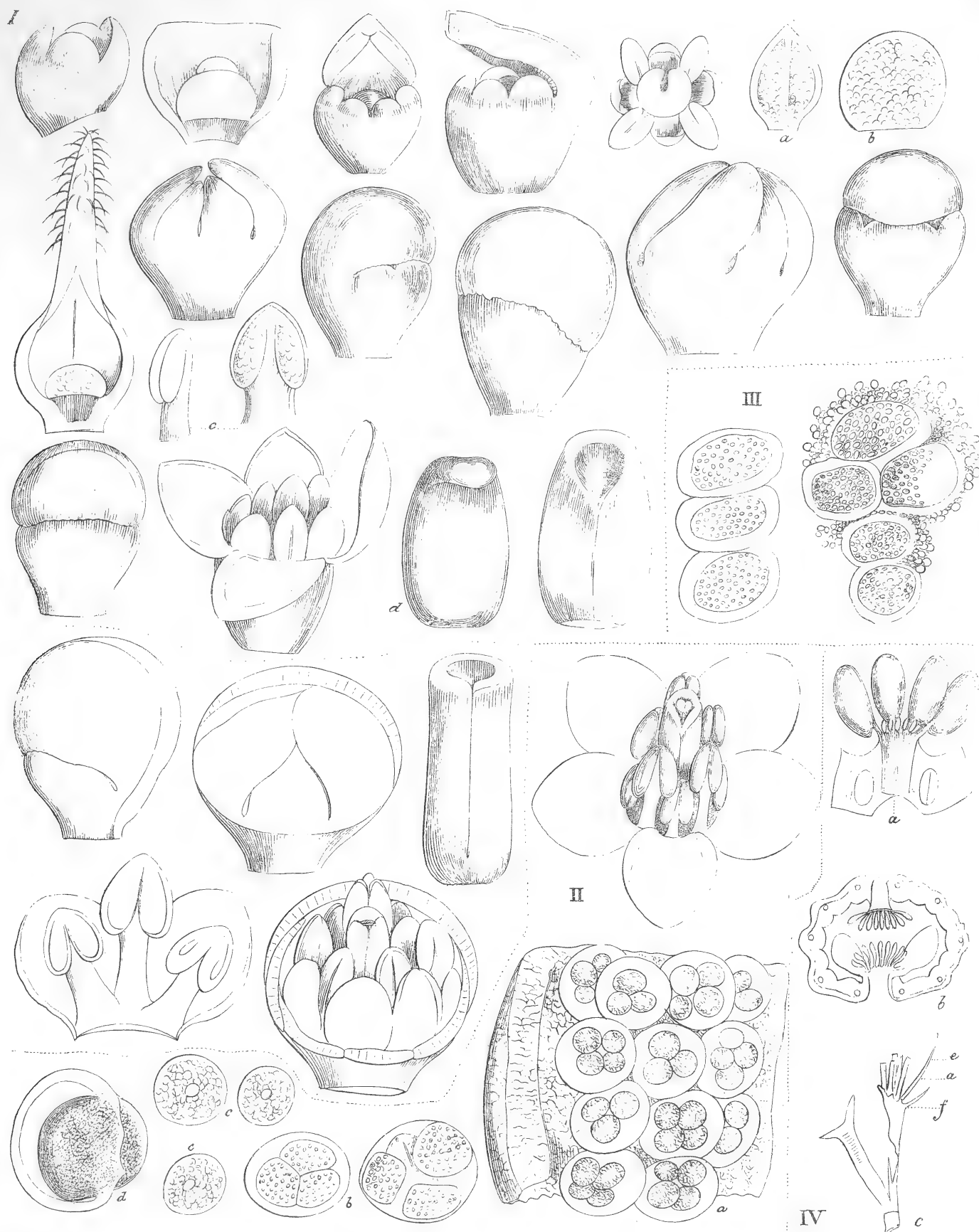




W. Griffith del.

Development of the Pollen of Melia.



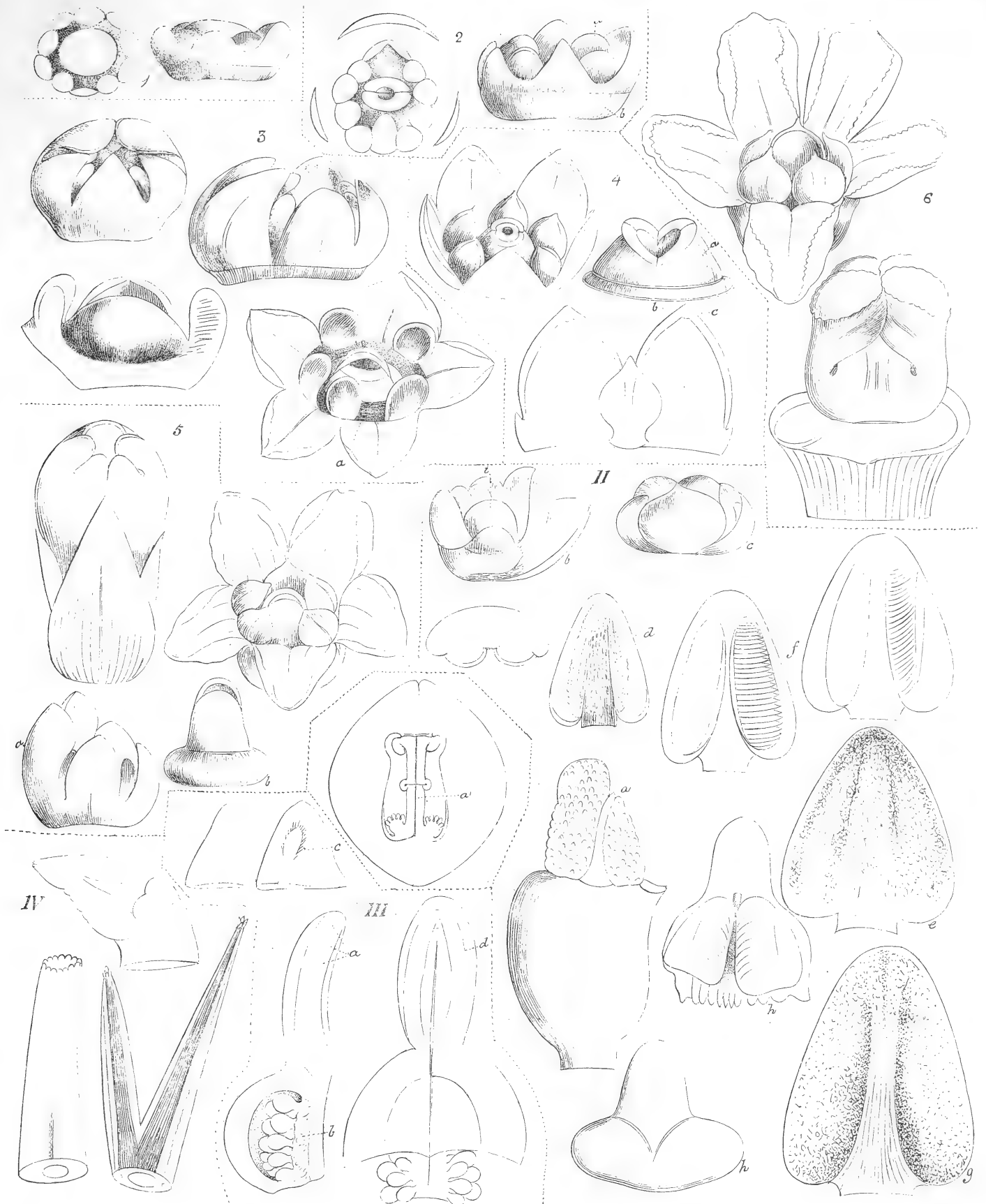


W. Griffith del.

I. II. *Punciana* III *Cactus* IV *Escholtzia*.



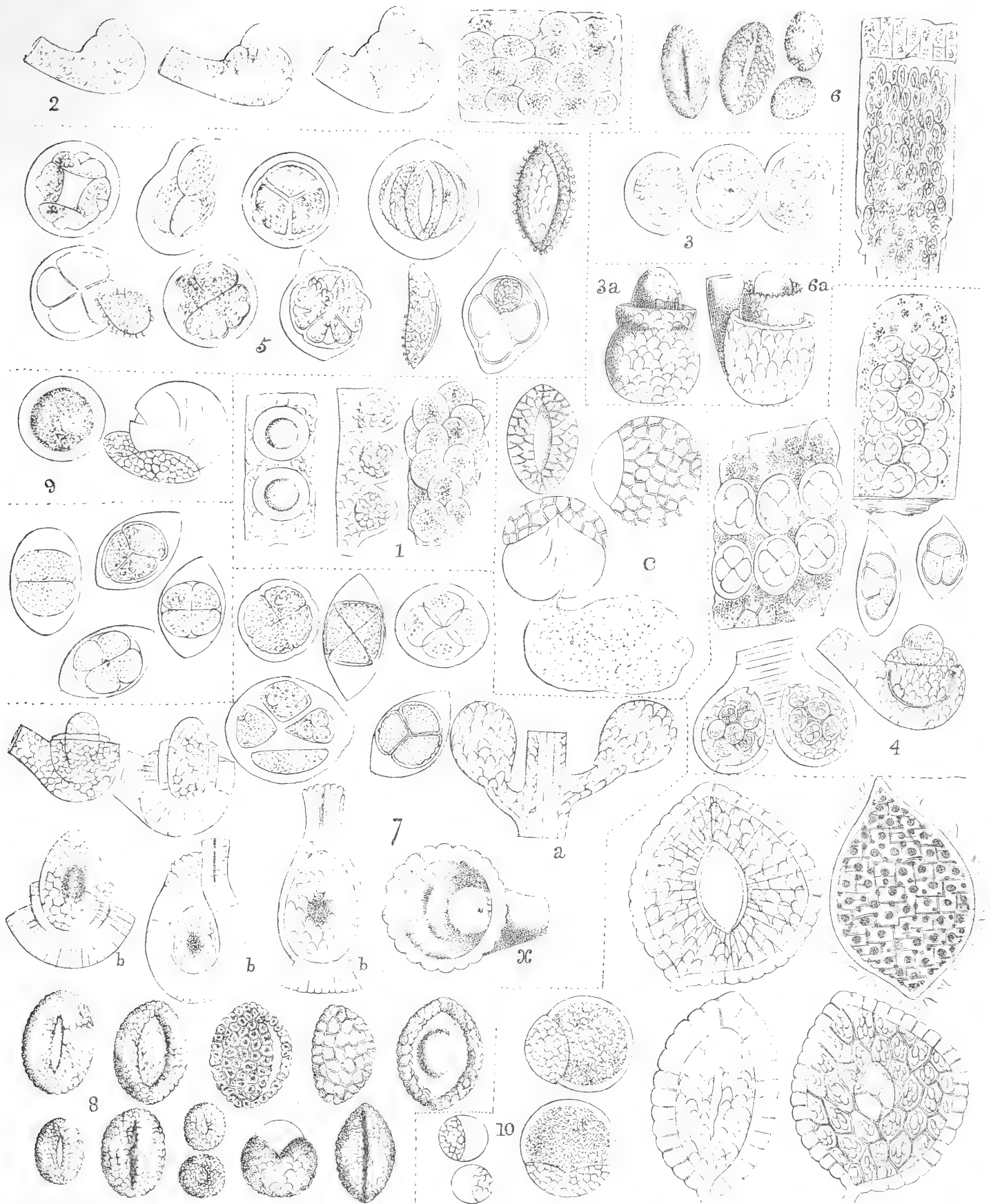




W. Griffith del.

I *Calosanthus* II *Calotropis* III *Lindenbergia*.





W. Griffith del

Development of the Pollen in Tardanthus chinensis.

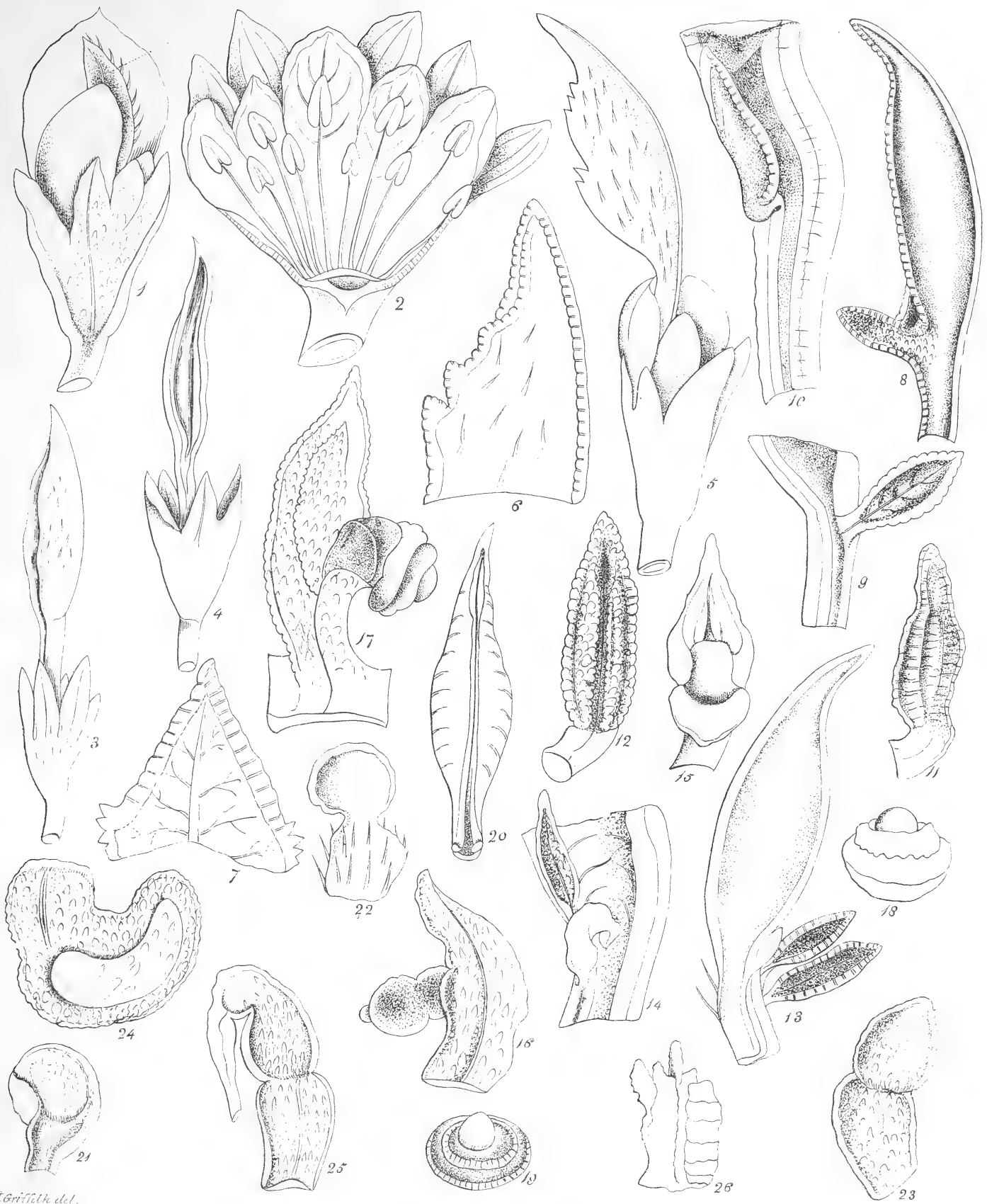




W. Griffiths del.

*Orchidea Goodyera*





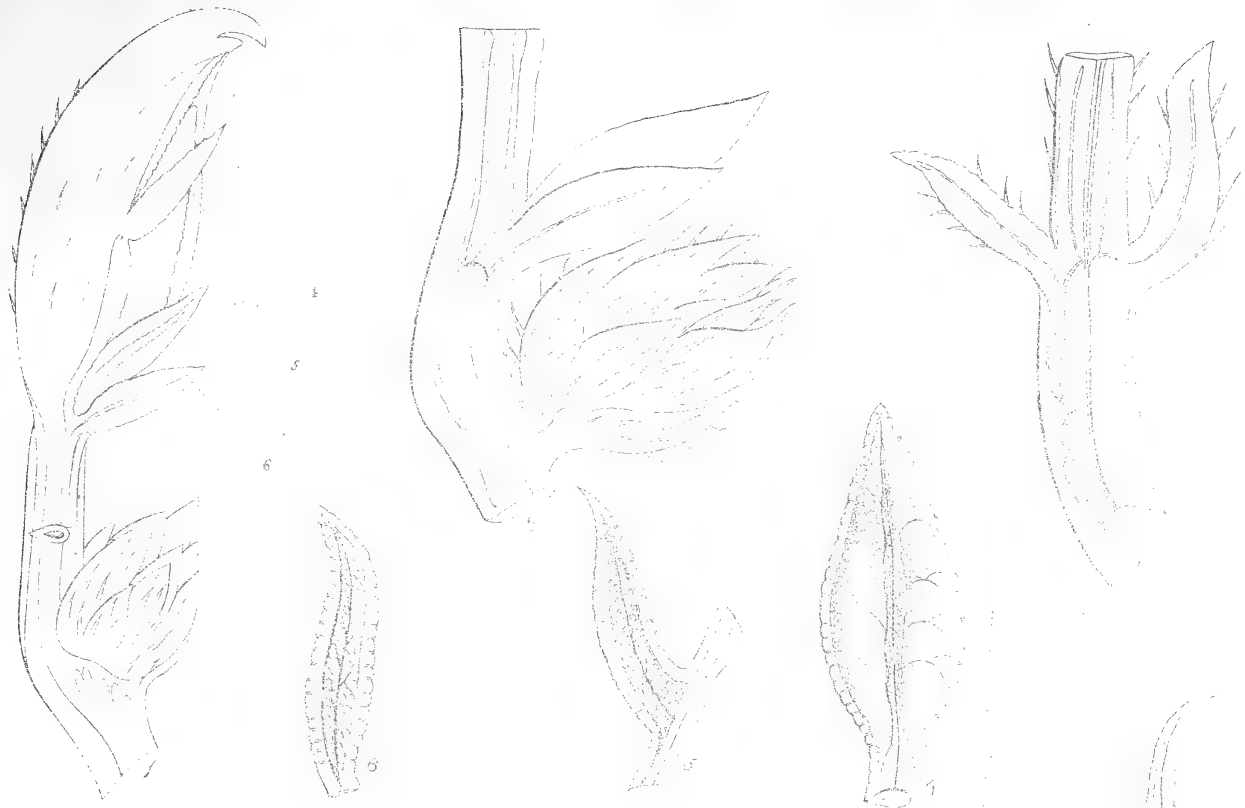
W. Griffith del.

*Melilotus*

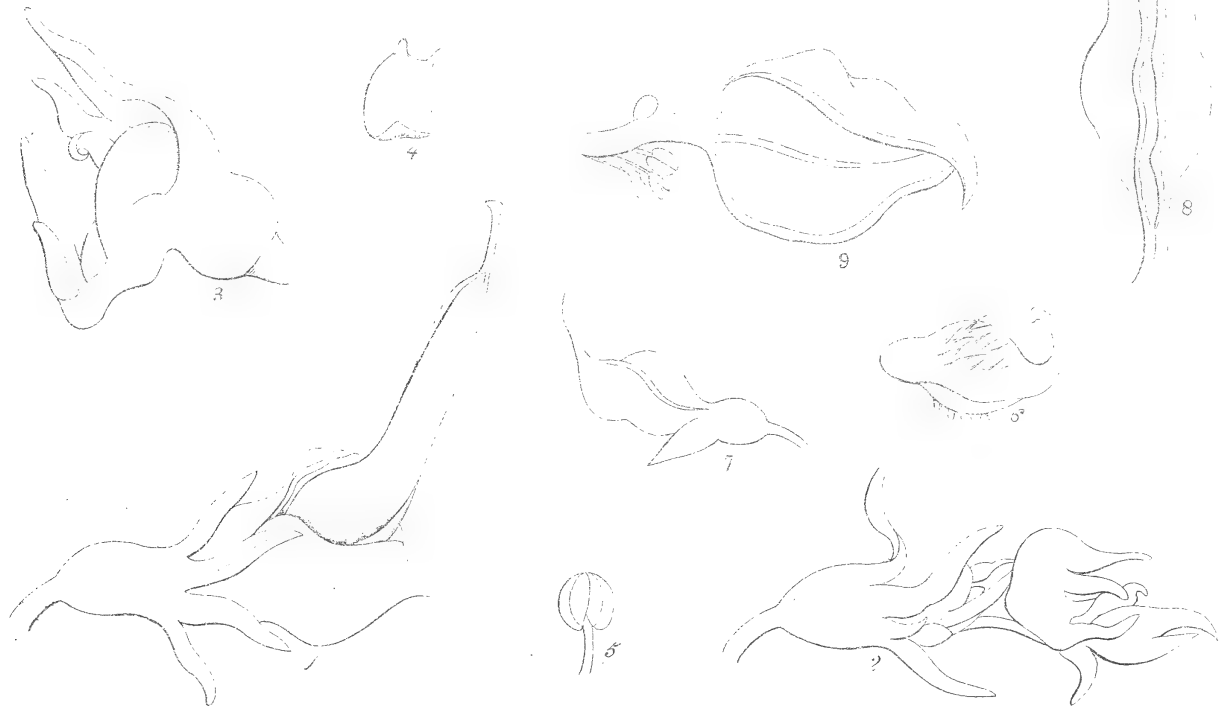




I



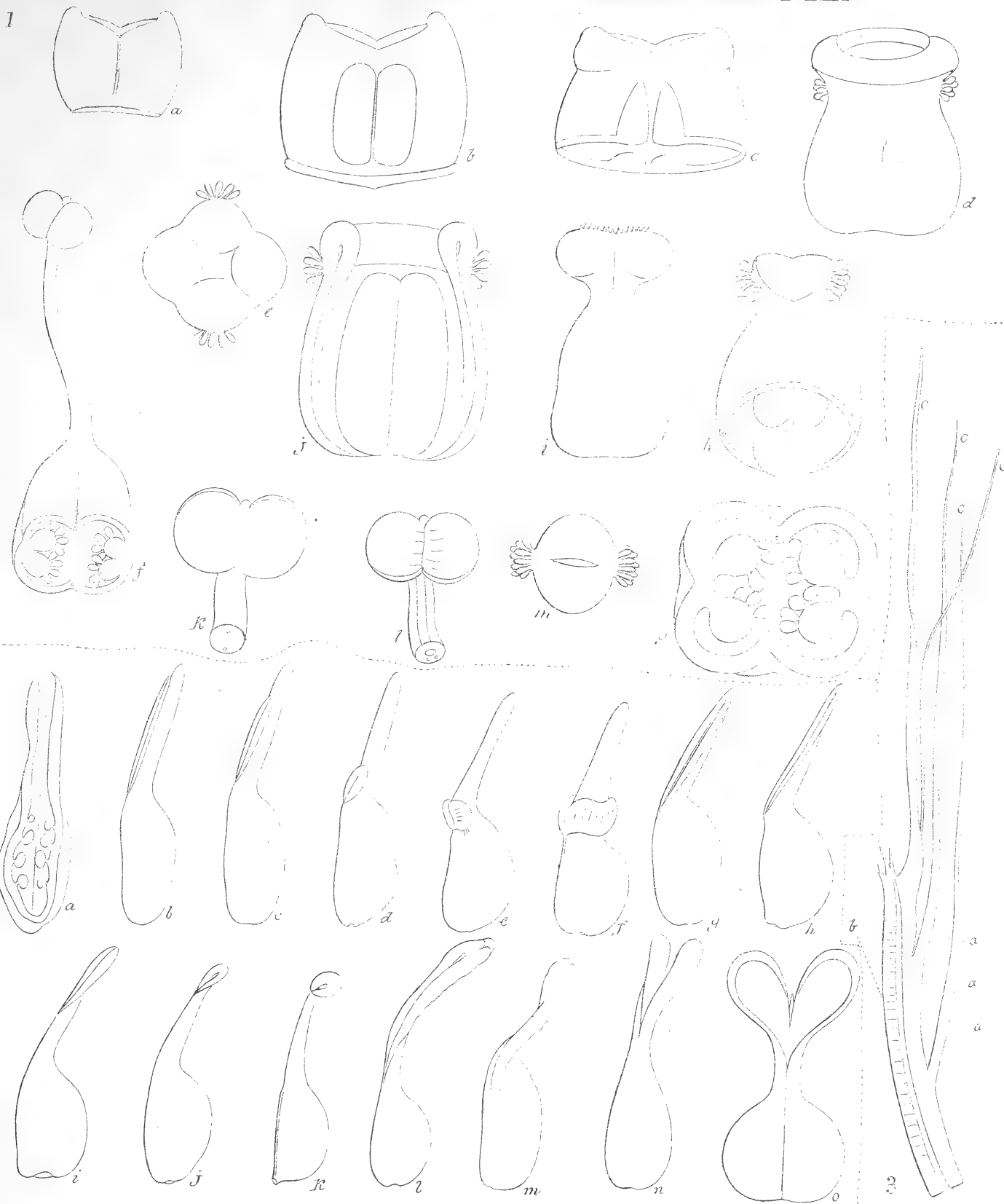
II



W Griffith del.

I. *Melilotus*. II. Monstrosity of *M. officinalis*.

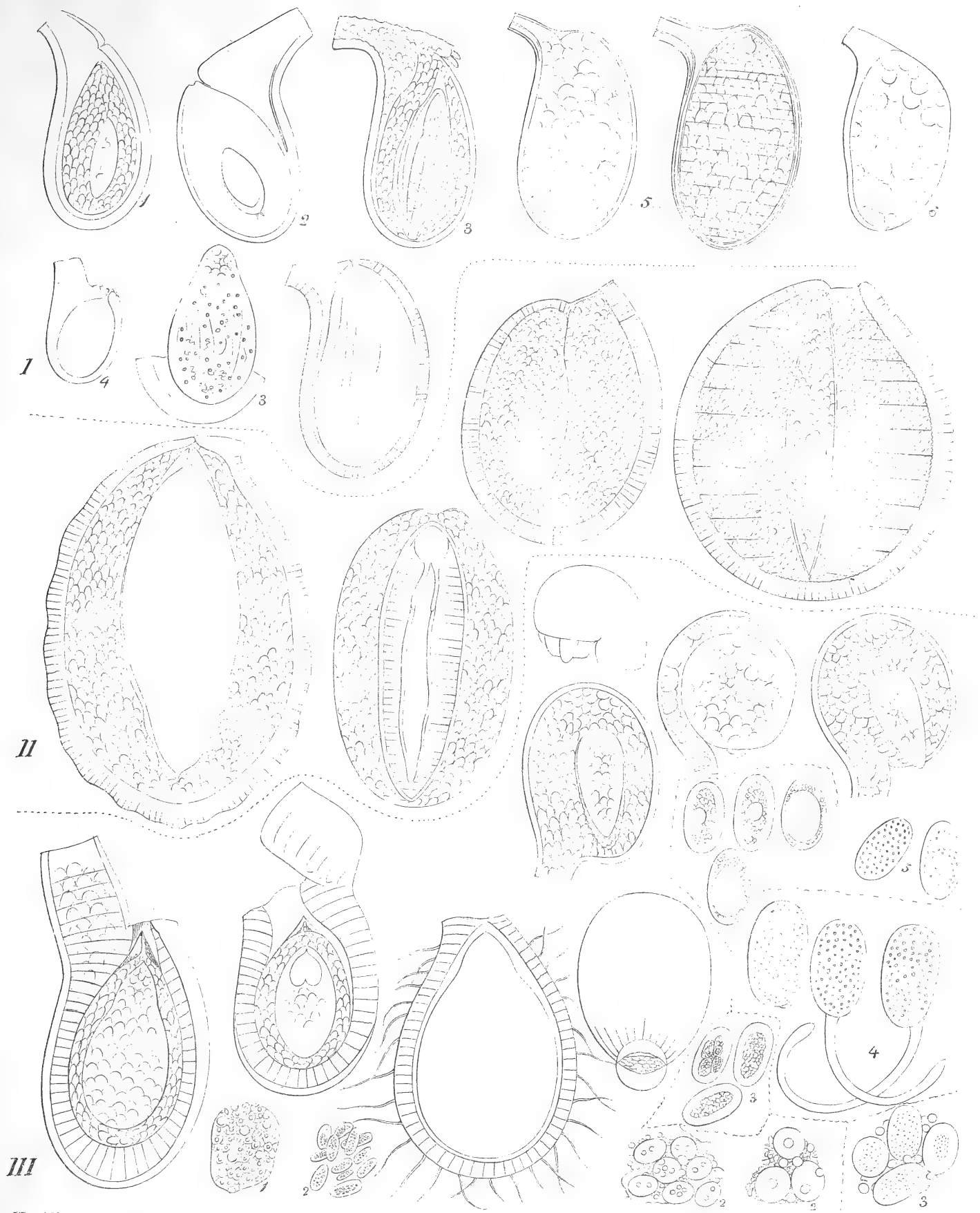




W. Griffith del.

1 Orobanche.

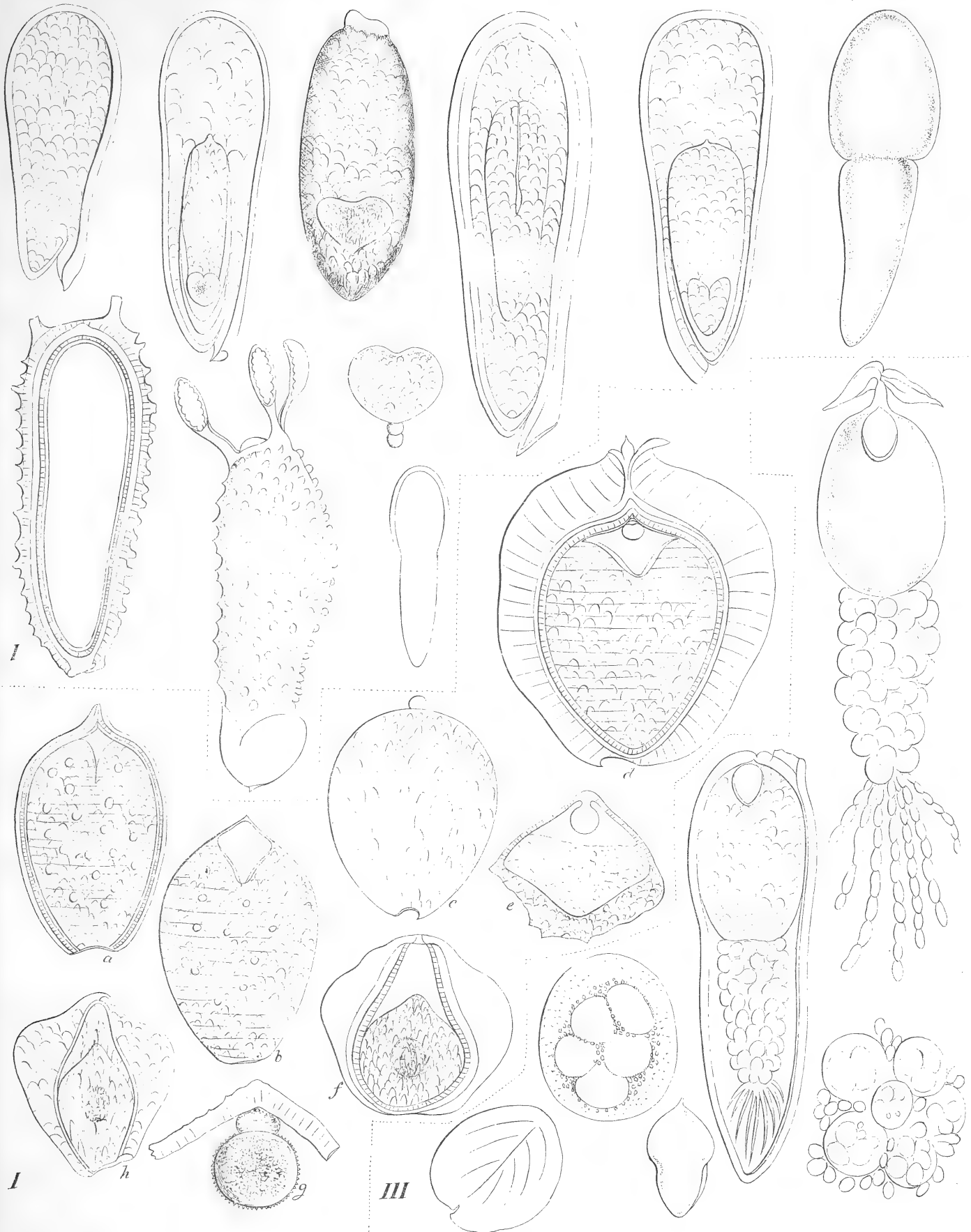




W. Griffiths del.

I. *Hydrocotyle*. II. *Marlea begonifolia*. III. *Impatiens tripetala*.



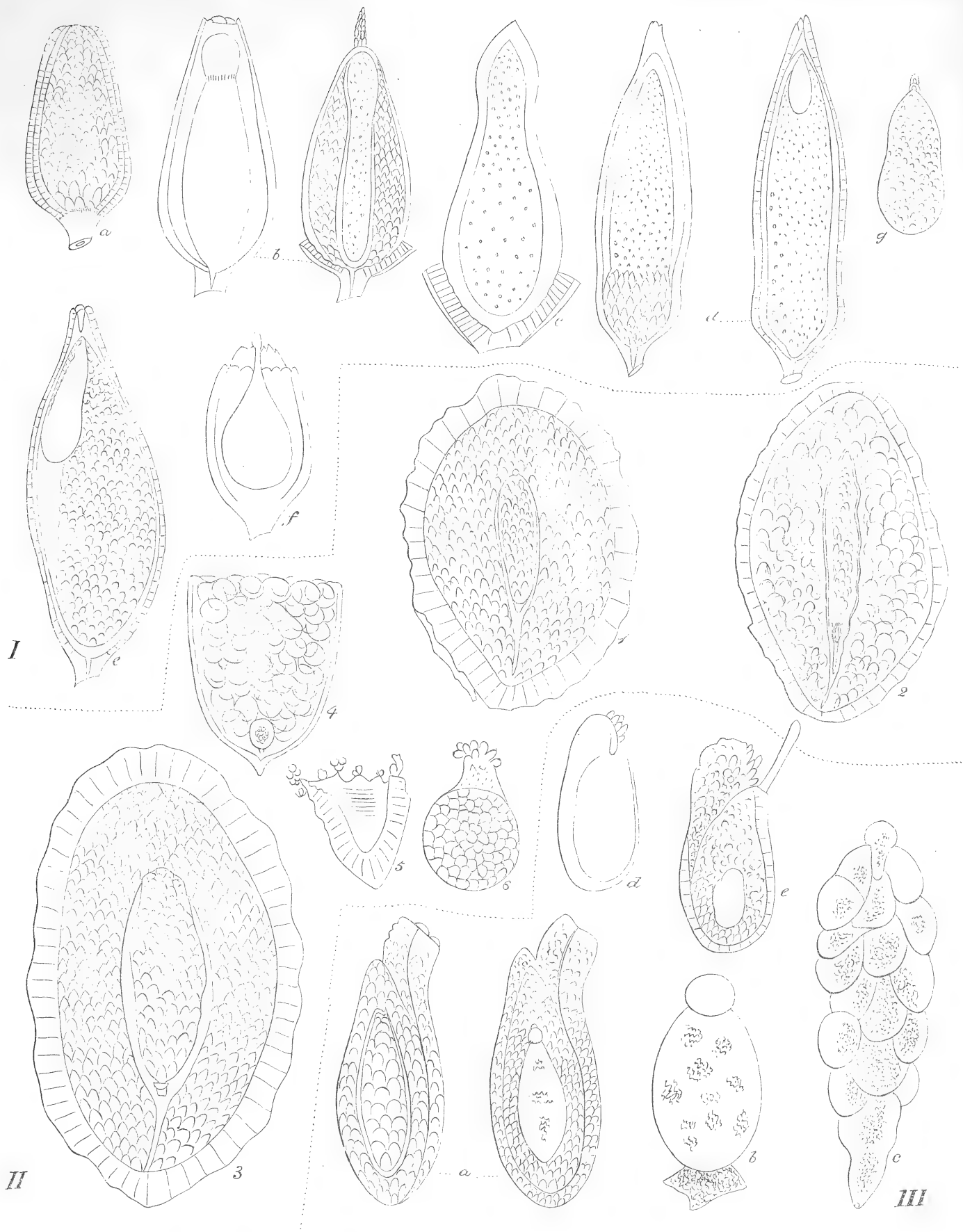


W Griffiths del

I Adenostemma, II Piperis, III Thymelia.



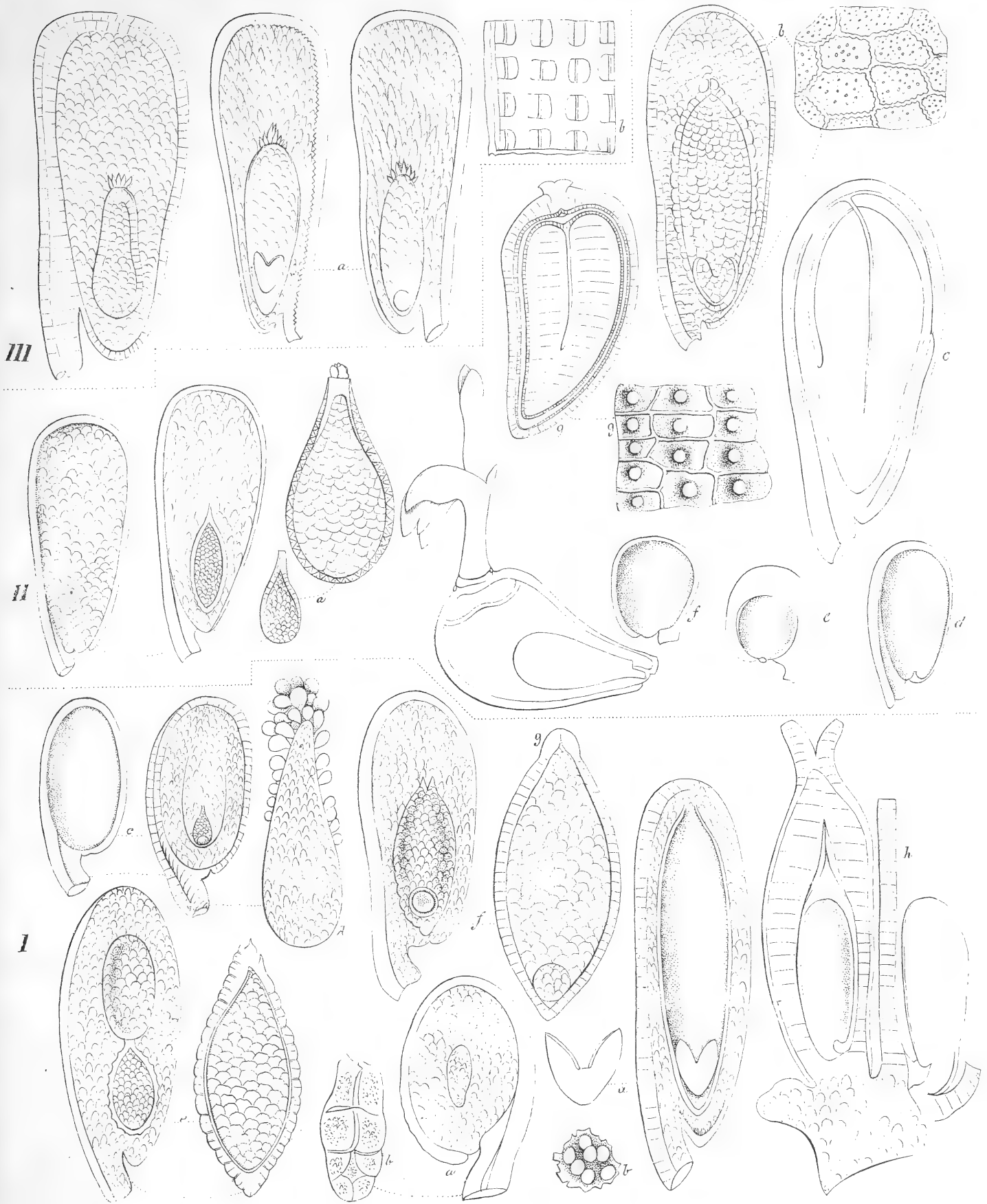




W. Griffiths del

I Polygoni. sp. II Styra, III Sambucus.

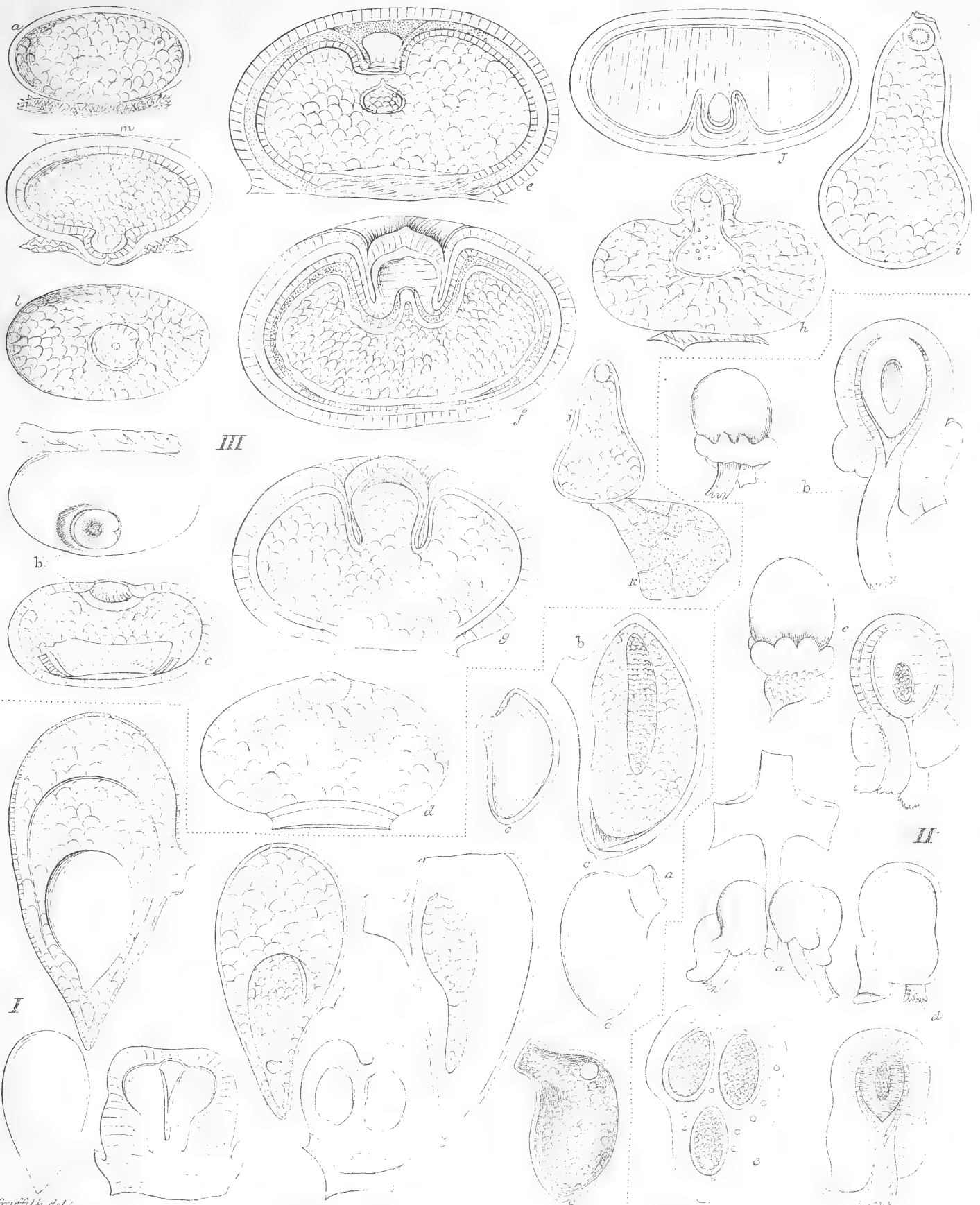




W. Griffiths del.

I *Xanthium indicum* II *Siegesbeckia orientalis* III *Spilanthes*.

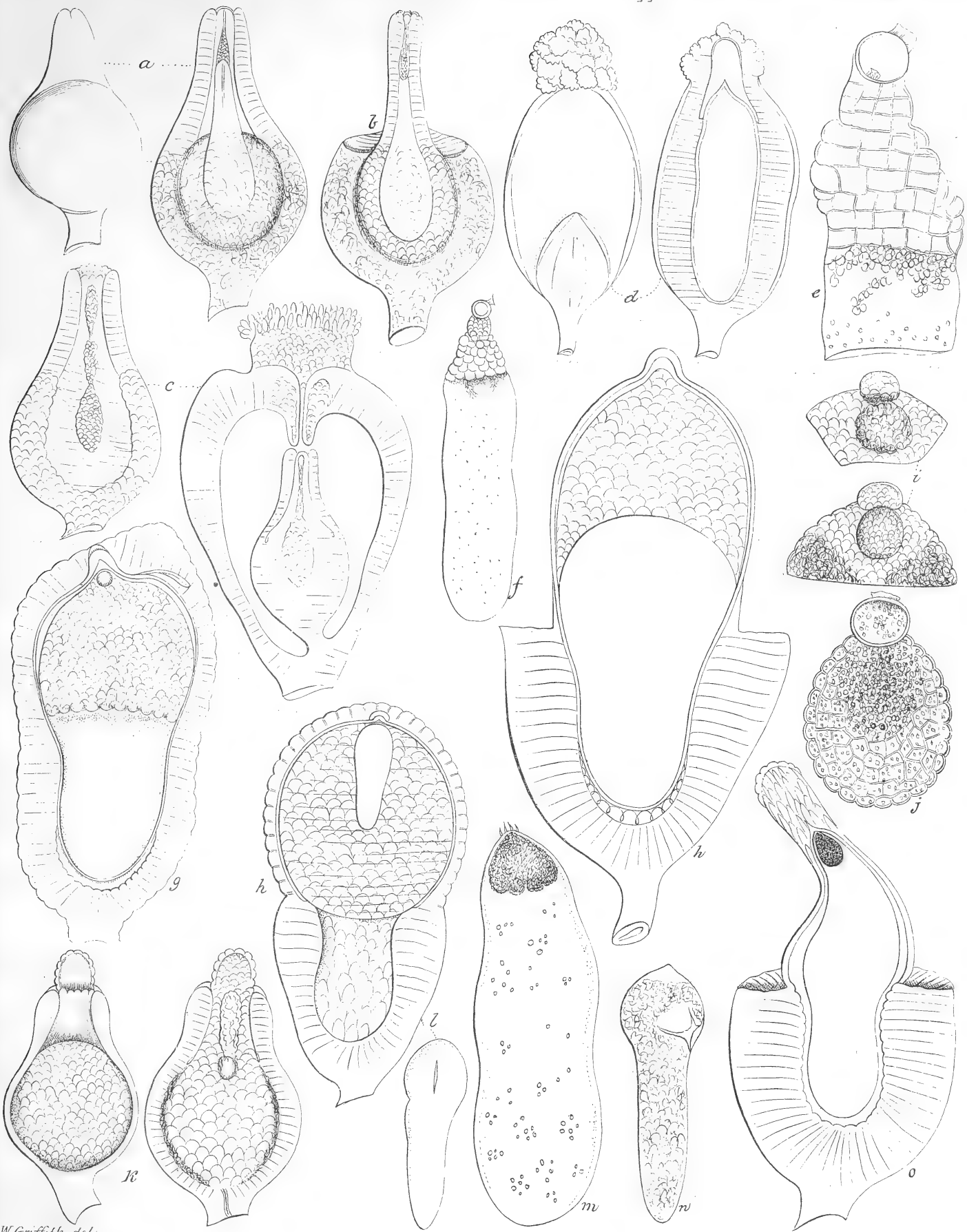




W. Griffiths del.

III Commelinae Sp. II Curcuma Sp. I Volkameria.



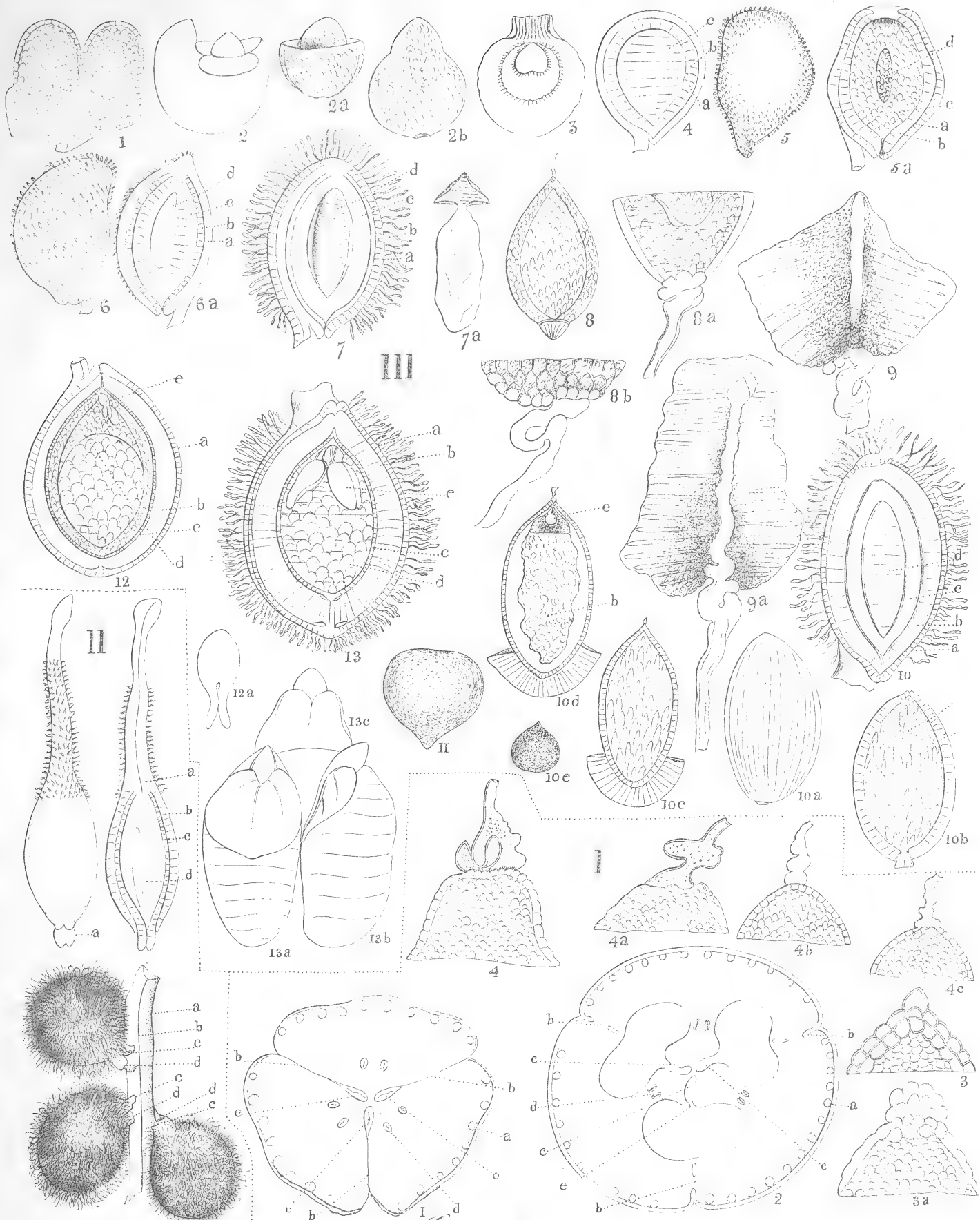


W Griffiths del.

*Arum orixense.*



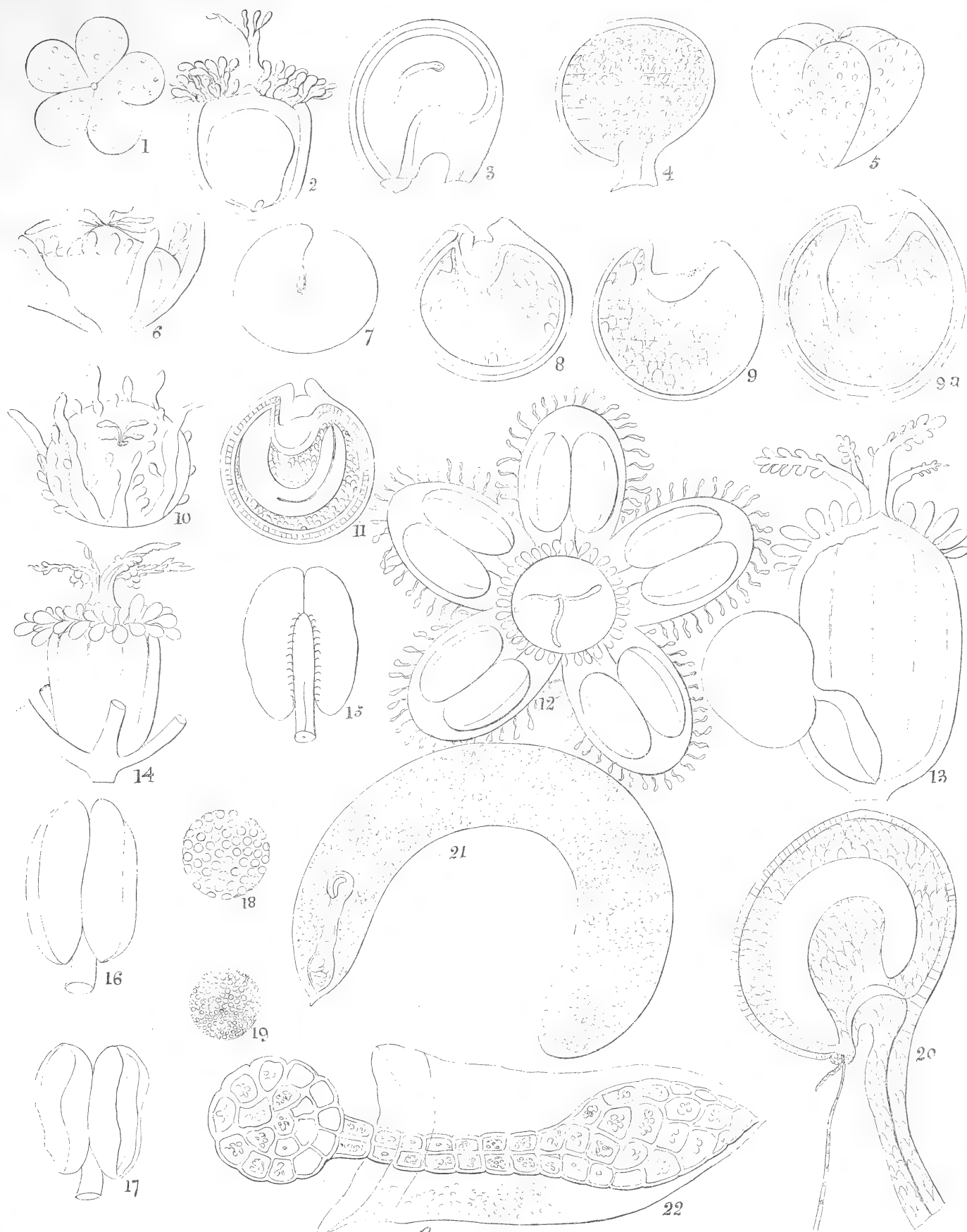




W. Griffith del.

*Gossypium*

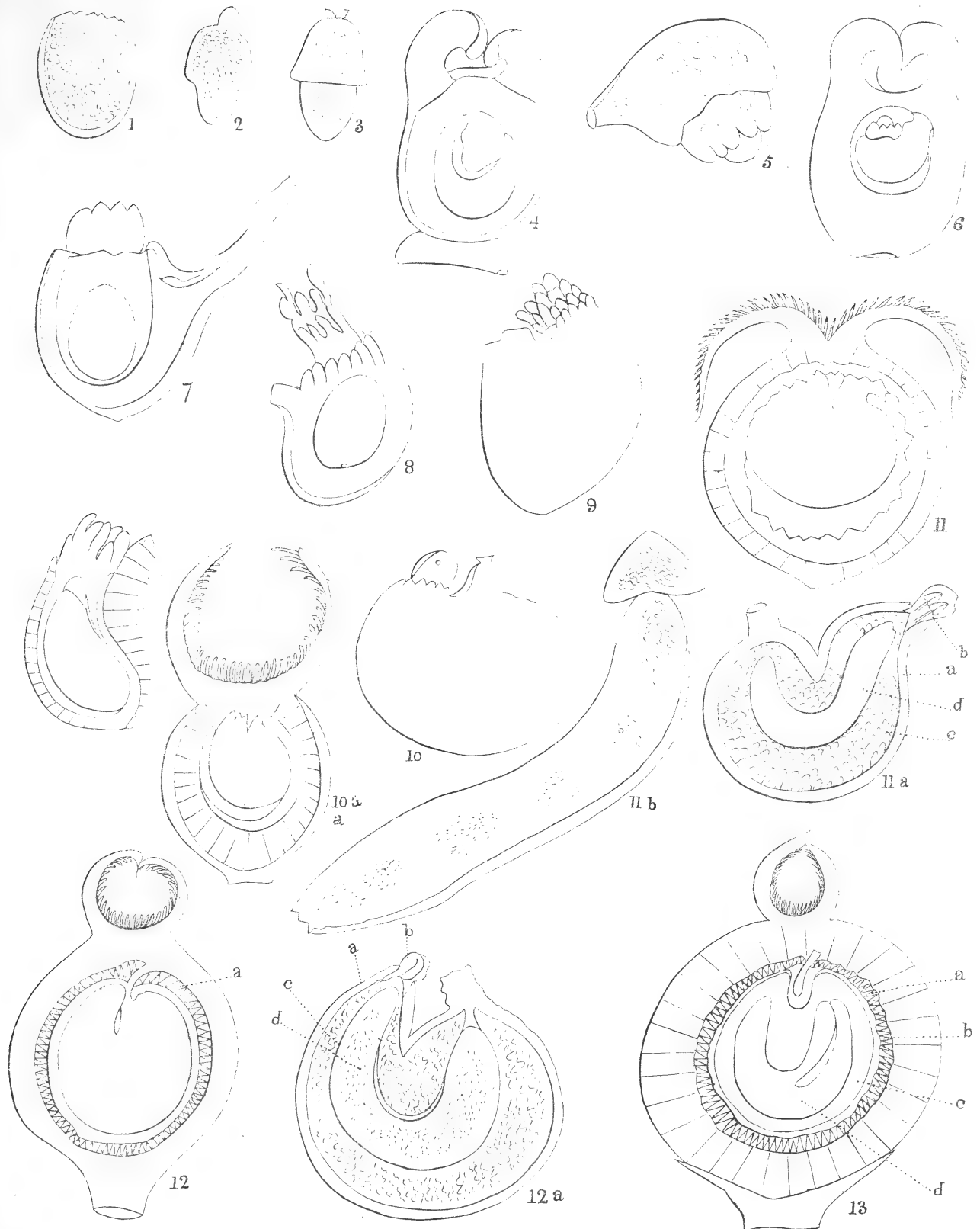




W. Griffith del.

*Chenopodium*

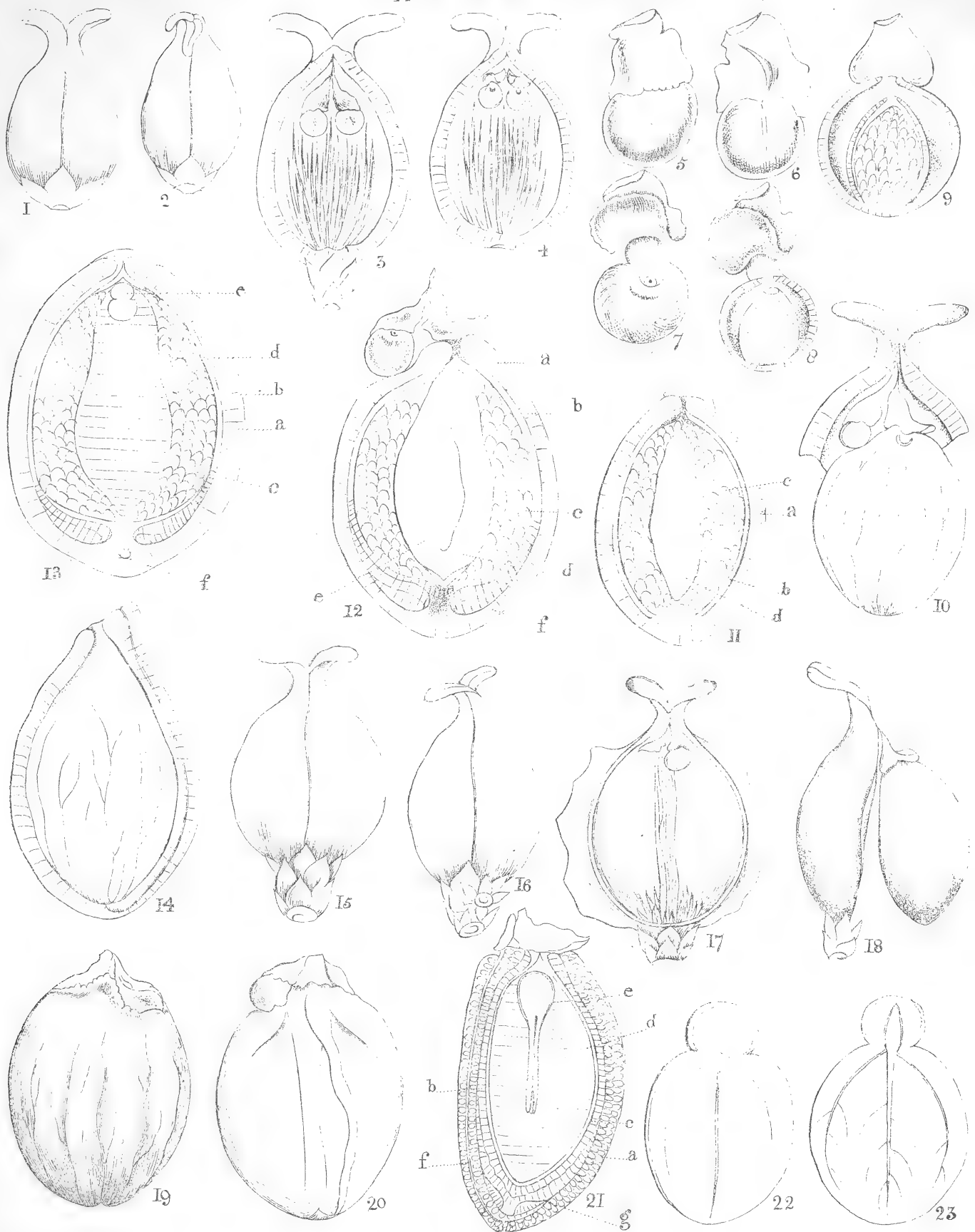




W. Griffith del. June 1838

*Ovula of Celtis.*



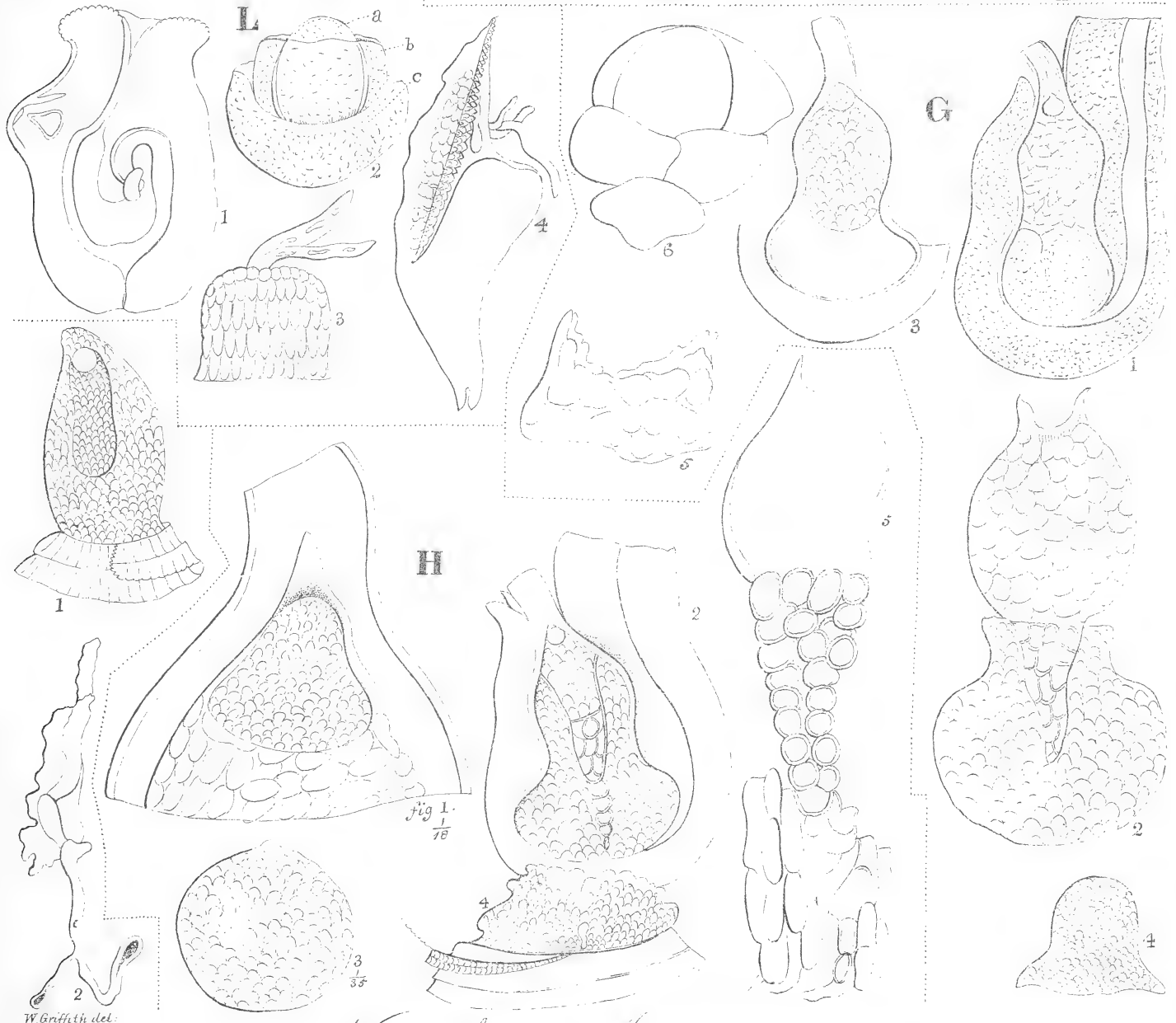
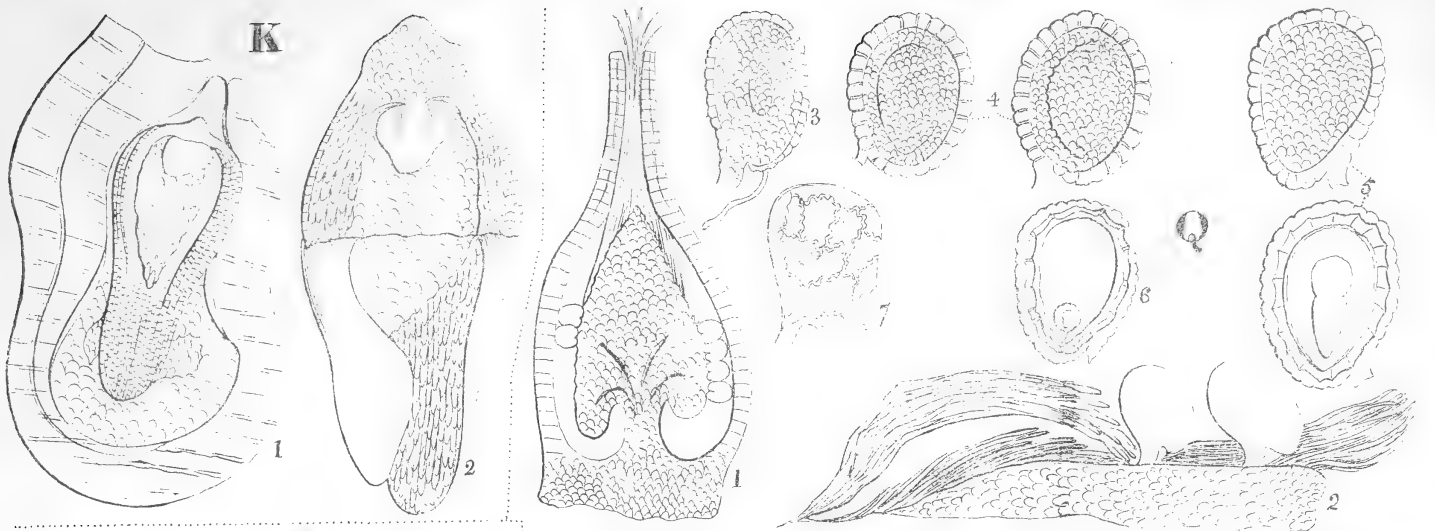


W. Griffith del. June 1838.

*Ovula of Liliaceae.*



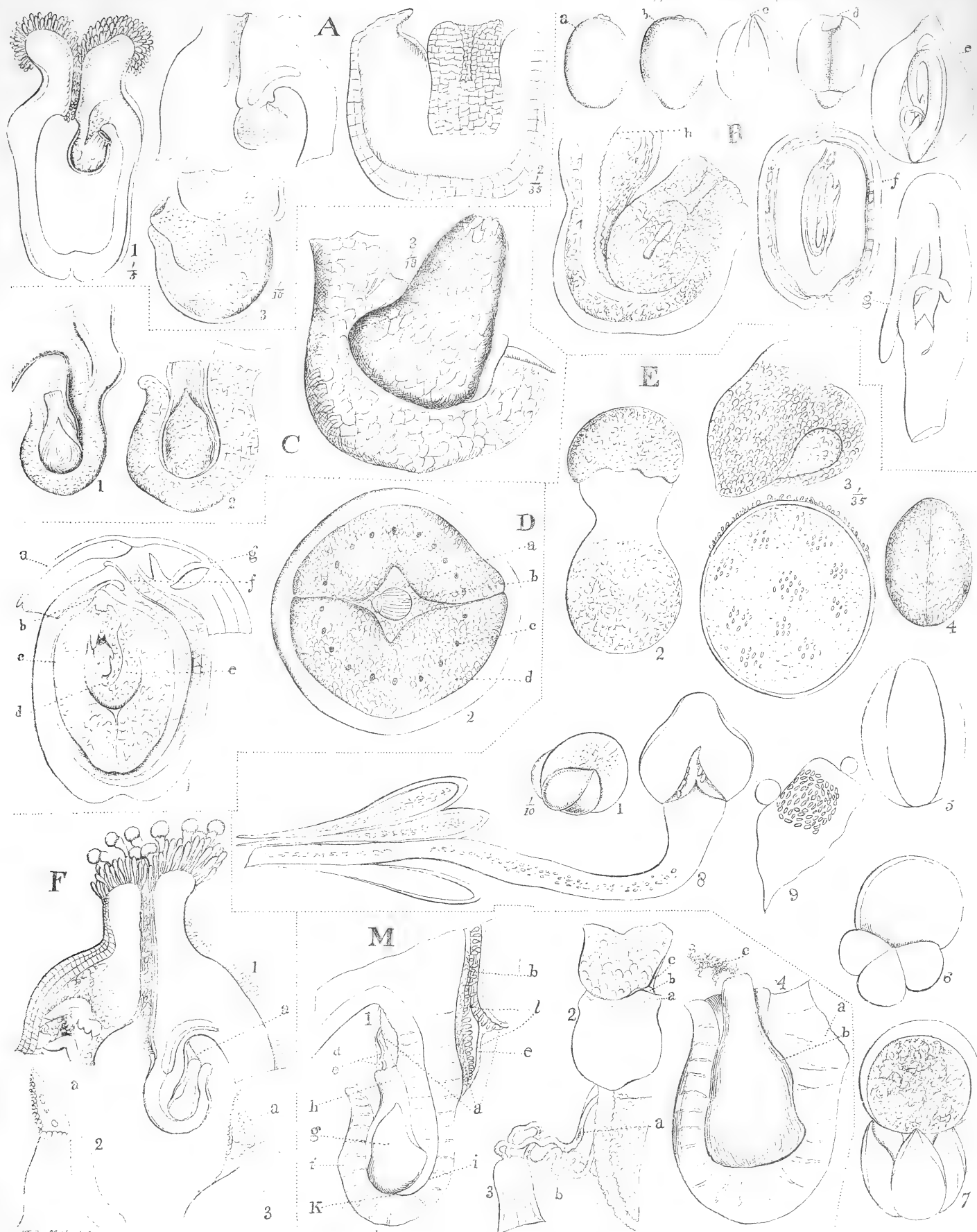




W Griffiths del.

*Nelumbium Impregnation.*





2. *Actumlium - Impregnation.*

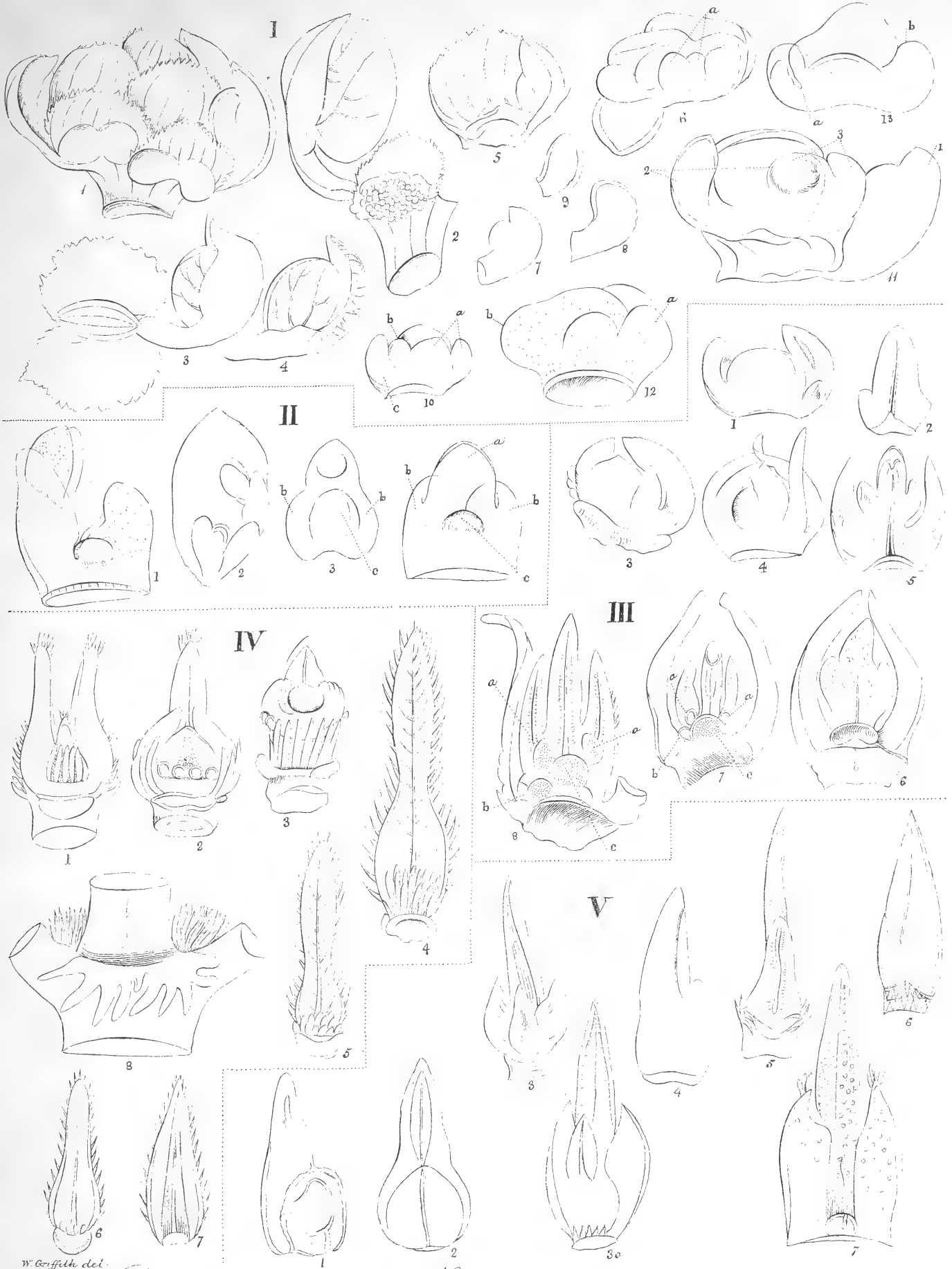




W. Griffith del.

A. *Artabotrys odoratissimus* B *Pharnaceum*. c *Allantodea*  
D. *Hydrocharis* F. *Barclaya*



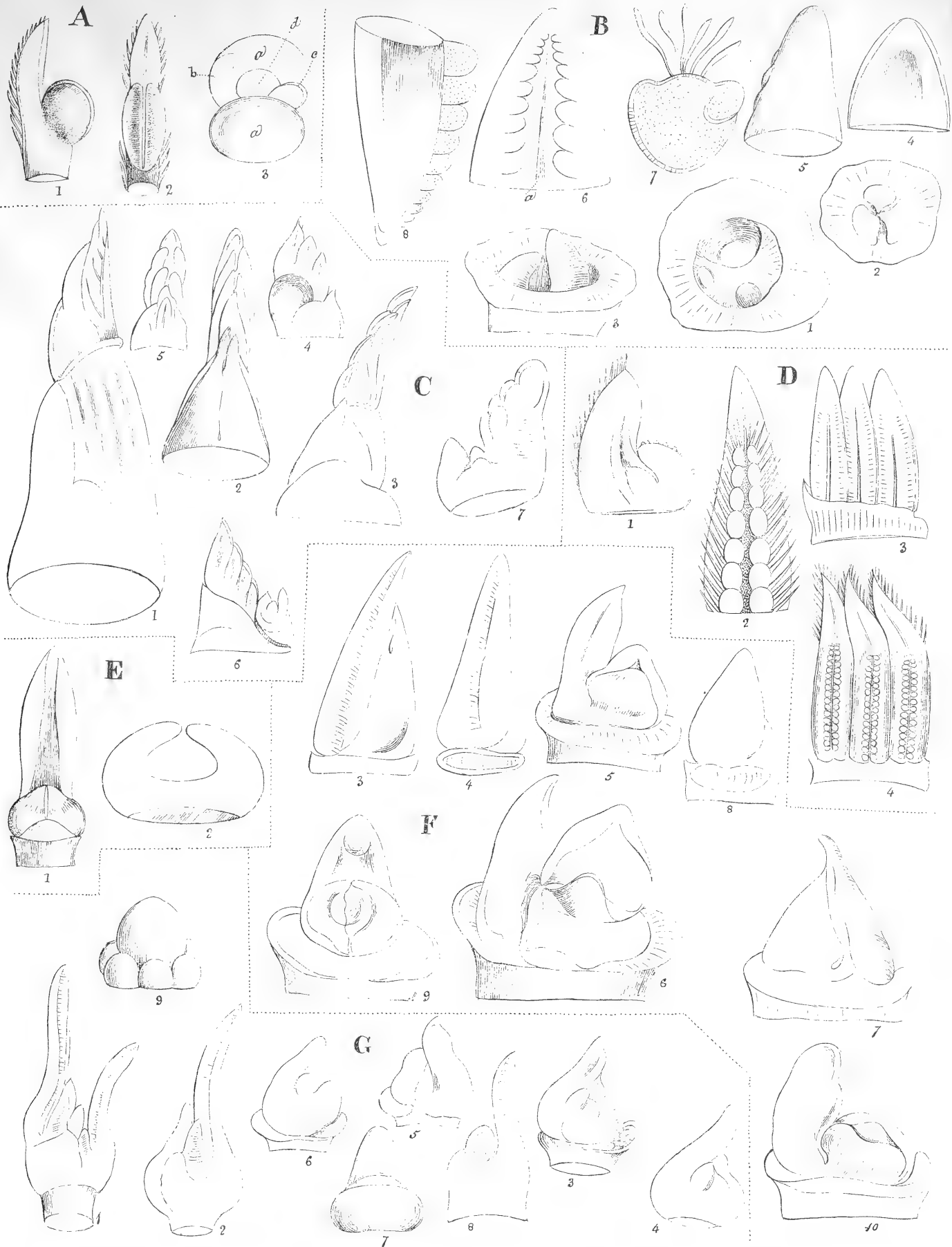


W. Griffith del.

I *Bauhinia diphylla* II *Hymeneaea Courbaril* III *Passiflora incarnata alba*.  
IV *Apocynaea cristata* V *Michelia champaca*.

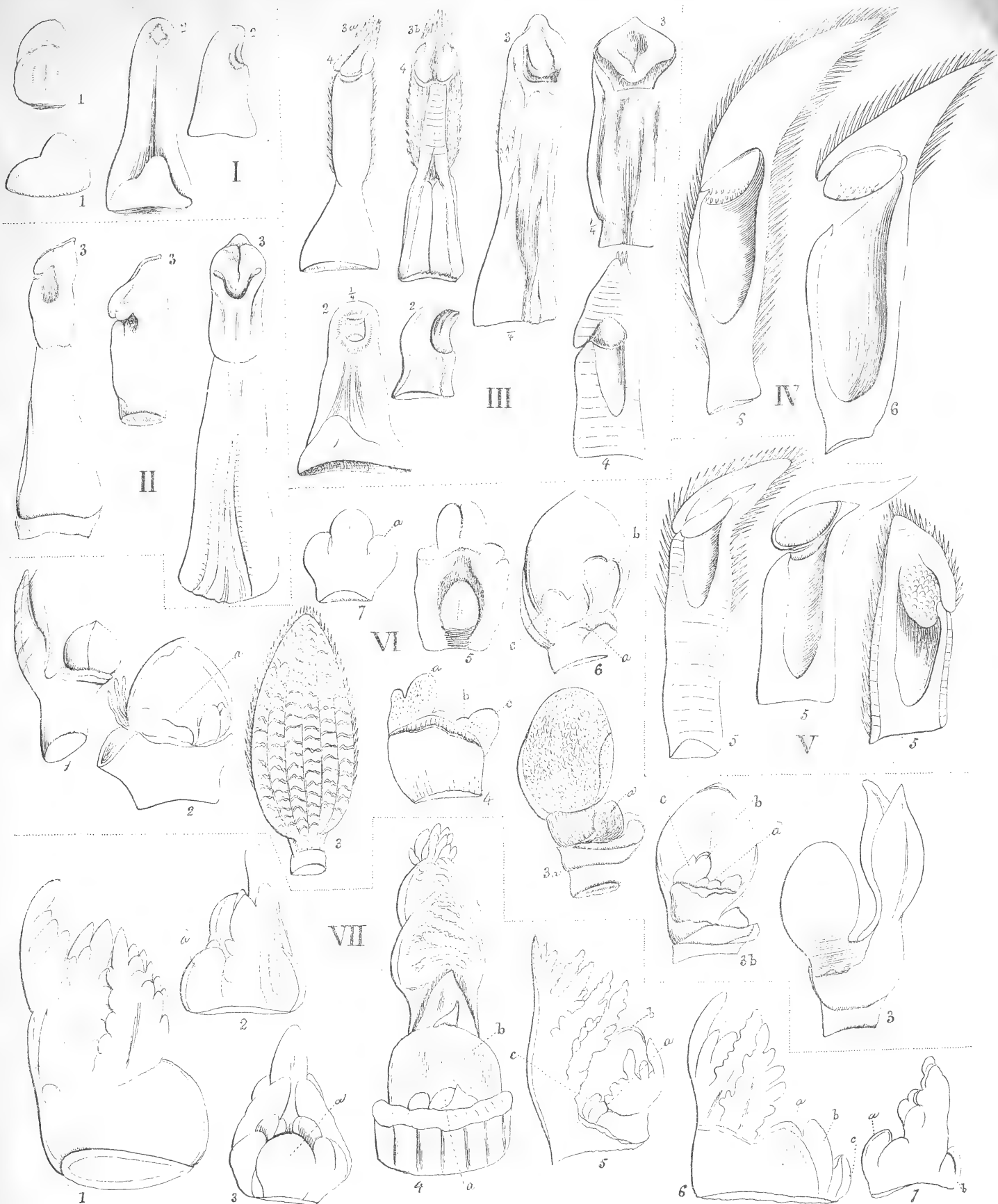






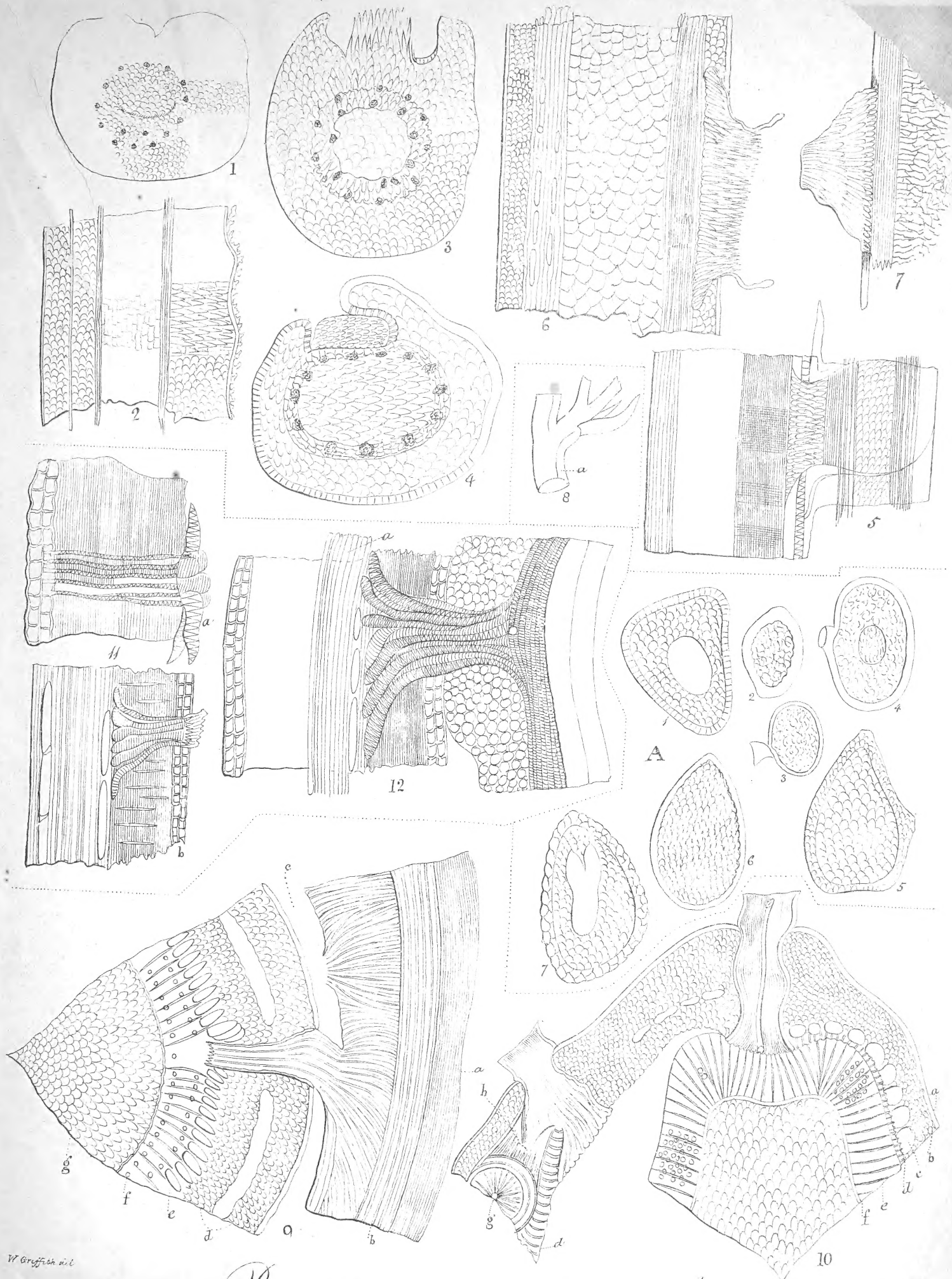
A. *Bauhinia*, B. *Bursera serrata*, C. *Aralia*, D. *Poinciana regia*  
 E. *Bruguiera gymnorhiza*, F. *Ficus elastica*, G. *Smilax*.





I. II. III. IV. V. *Nepenthes distillatoria*, VI. *Hymenaea verrucosa*.  
VII. *Nandina domestica*.





W. Griffiths del.

Parasitism. (*Acvulum Spermacocae* Sp.)









SMITHSONIAN INSTITUTION LIBRARIES  
  
3 9088 00612 6023